FINAL STATEMENT OF REASONS

AMENDMENTS ADOPTED INTO APPLIANCE EFFICIENCY REGULATIONS

CALIFORNIA CODE OF REGULATIONS, TITLE 20:

CHAPTER 2, SUBCHAPTER 4, ARTICLE 4, SECTIONS 1601-1608:

APPLIANCE EFFICIENCY REGULATIONS

CALIFORNIA ENERGY COMMISSION

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INTRODUCTION

This document is the Final Statement of Reasons (FSOR) and Updated Informative Digest required by Government Code, sections 11346.5, subd. (a)(19), 11346.9, and 11347.3(b)(2).

Existing law (Pub. Resources Code, § 25402, subd. (c)) requires the State Energy Resources Conservation and Development Commission (commonly referred to as the Energy Commission) to adopt regulations that prescribe minimum efficiency levels for appliances. The Energy Commission first adopted appliance efficiency regulations in 1976 and has periodically revised them since. The current regulations include:

- provisions on testing of appliances to determine their efficiency
- reporting of data by manufacturers to the Energy Commission
- standards establishing mandatory efficiency levels
- compliance and enforcement procedures
- general provisions on the scope of the regulations and definitions.

(See 20 Cal. Code Regs., § 1600, et seq.)

The existing appliance efficiency regulations include efficiency standards for audio video equipment and televisions.

In this rulemaking proceeding the Energy Commission adopted standards to set two tiers of new efficiency standards for televisions in active/on mode and standby mode, and for power factor correction and brightness luminance control. The adopted standards for this rulemaking have an effective date of January 1, 2011, for Tier I, and January 1, 2013, for Tier II. The Energy Commission also adopted International Electrotechnical Commission ("IEC") test methods nos. 62301, Ed. 1.0, and 62087 Ed 2.0, with modifications as described in Section 1604 of the adopted regulations, to measure the active and standby mode energy consumption.

PROCEDURAL HISTORY OF THE RULEMAKING

On September 18, 2009, the Office of Administrative Law published a Notice of Proposed Action (NOPA) concerning the potential adoption of proposed amendments to the Appliance Efficiency Regulations (commonly referred to as the Express Terms or 45-Day Language of the regulations). The NOPA, Initial Statement of Reasons (ISOR), and the 45-Day Language Express Terms were posted on the Energy Commission website on September 18, 2009.

The first public hearing listed in the NOPA, before the Energy Commission's Efficiency Committee, was held on October 13, 2009, where public comments were received. A second public hearing was listed in the NOPA, before the full Energy Commission, to be held on November 4, 2009. The public comment period for this NOPA ran from September 18, 2009, through November 2, 2009.

The Energy Commission received substantial comments, including a large number shortly before 5 p.m. on the last day of the comment period on November 2, 2009. To fully consider the content of the submissions received, the Energy Commission rescheduled the hearing on the proposed regulations and associated Negative Declaration pursuant to the California Environmental Quality Act (CEQA), Public Resources Code, section 21000 et seq. The hearing was held on November 18, 2009. Notice of this was posted on the Energy Commission's website on November 4, 2009, and mailed to all known stakeholders.

On November 18, 2009, the Energy Commission held the hearing to consider adopting the proposed Negative Declaration, including a Finding of No Significant Impact under CEQA, for the proposed regulations, and to consider adopting the regulations. Public comments were taken at the hearing. Following the hearing, the Energy Commission unanimously adopted the Negative Declaration and the Express Terms as initially published with the NOPA.

AUTHORITY AND REFERENCE

The Energy Commission adopted the regulations under the authority of Public Resources Code, sections 25213, 25218 subd. (e), and 25402, subd. (c)(1). The adopted amendments implement, interpret, and make specific Public Resources Code, section 25402, subd. (c)(1). These are the same References and Authorities for the current regulations.

UPDATE TO THE INFORMATIVE DIGEST

The terms of the regulations as adopted by the Energy Commission were not changed from those initially noticed and made available for public comment. However, it should be noted here that the regulatory text, submitted herewith to the Office of Administrative Law ("OAL") for review and filing with the Secretary of State for publication, reflects three non-substantive changes without regulatory effect (1 Cal. Code Regs., § 40). These changes are described in detail further below with the reasons therefore. As the regulations have not been substantively changed, there is no need to update the Informative Digest, and there was no

additional notice or public comment period required. (Gov. Code, § 11346.8, subd. (c).

Changes to Final Express Terms

Specifically, the three changes:

A. delete a reference to a federal test method for televisions that has been repealed to conform to changes in federal law after the regulations were made available for public comment;
B. correct an effective date to reflect the date the regulations were submitted to OAL and will become effective after filing with the Secretary of State, and;
C. correct cross-references within the regulations.

These changes clarify without materially altering the requirements, rights, responsibilities, conditions, or prescriptions of the regulations (1 Cal. Code Regs., § 40). The Energy Commission makes these changes pursuant to its November 18, 2009, Adoption Order, number 09-1118-13. These changes are reflected in the Full Text of the Proposed Final Regulations submitted herewith.

A. Reference to Federal Test Method

The Express Terms made available for public comment included savings clauses reflecting a federal test method for television efficiency, which would have pre-empted the test method contained in Section 1604, subd. (v), of the regulations. Section 1604, subd. (v)(1), Test Methods for Specific Appliances, provided:

> The following test procedures for televisions take effect as state law only on the removal of federal preemption by action such as a change in federal law.

Similarly, Section 1605, subd. (v)(3), Table V-2, provided:

> The efficiency standards for televisions take effect one year after removal of federal preemption for the test procedures in section 1604(v), but no earlier than the effective dates in Table V-2.

In October 2009, the U.S. Department of Energy (DOE) issued a notice in the Federal Register

> to repeal the regulatory provisions establishing the test procedure for televisions under the Energy Policy and Conservation Act (EPCA). The

> test procedure has been made obsolete by the transition from analog to digital television in the United States, effective June 13, 2009. This rule is effective October 20, 2009.[1]

As reflected in the Initial Statement of Reasons (ISOR), the Energy Commission previously petitioned the DOE to take this action. However, the DOE had not acted on the petition when the Express Terms were published.

Due to the subsequent repeal of the federal test procedure, the savings clauses are unnecessary. This language should be deleted from Section 1604, subd. (v)(1), and Section 1605.3, subd. (v)(3), Table V-2, as adopted.

B. Effective Date of Energy Performance Information Requirements

The effective date in the adopted regulations of the requirement to include the power consumption of televisions in publications, websites, documents, or retail displays was July 1, 2010. (Section 1607, subd. (d)(11)(B).)

This Section reads in the Express Terms:

> any publication, website, document, or retail display that is used for sale or offering for sale of a television manufactured on or after July 1, 2010 that includes a description of the physical dimensions of the television shall also include the identical on mode power consumption, in watts, immediately following and in the same font and same font size as the description of the physical dimensions, as filed under the requirements found in Section 1606(a)(3)(D) of this Article.

The Energy Commission fully expected the regulations to have been filed with the Secretary of State before now. However, this date has now passed.

To conform to the anticipated effective date of the regulations after filing with the Secretary of State, the Energy Commission requests an effective date later than 30 days after filing with the Secretary of State, to January 1, 2011, pursuant to Government Code, section 11343.4, subd. (b).

The Energy Commission further requests that the July date in the regulation be changed to reflect the effective date in January. This change does not materially alter the requirements, rights, responsibilities, conditions, or prescriptions of the regulations, where the regulations were not effective and conveyed no vested right or obligation under the July date (1 Cal. Code Regs., § 40). Accordingly,

[1] Available at: http://edocket.access.gpo.gov/2009/E9-25170.htm.

Section 1607, subd. (d)(11)(B), of the regulatory text submitted herewith reflects an effective date of the requirement to mark televisions of January 1, 2011.

C. Cross-Reference

Section 1605.3, subd. (v)(3) requires:

> televisions manufactured on or after January 1, 2011 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.

As pointed out by a commenter, these references should be to Sections 1605.3(v)(3)(A), 1605.3(v)(3)(B), and 1605.3(v)(3)(C), which immediately follow this statement. The sections referenced above do not exist. Accordingly, Section 1605.3(v)(3) submitted herewith refers to Sections 1605.3(v)(3)(A), 1605.3(v)(3)(B), and 1605.3(v)(3)(C).

UPDATE TO THE MATERIALS RELIED UPON

There were no new materials relied upon to develop the regulatory text or adopt the regulations. To facilitate OAL's review of the rulemaking file, the documents listed in the ISOR as relied upon along with the documents cited therein and incorporated by reference are submitted herewith.

Moreover, subsequent to publication of the NOPA and the Express Terms, additional information provided to staff of the Energy Commission, including much of that submitted pursuant to public comments, provided further evidence that the regulations were feasible and cost-effective. This information included, but was not limited to, sales and energy consumption data for ENERGY STAR televisions. Because this information corroborated and supported the information relied upon to develop the regulatory text, the Energy Commission did not consider or rely on this new information to adopt the regulations. Energy Commission staff did, however, cite to some of this information when responding to the public comments opposing or suggesting a change in the regulations. Where this information is cited, it is with the understanding that it was not relied upon to develop the regulatory text or to adopt the regulations, but merely to respond to public comments.

UPDATE TO DOCUMENTS INCORPORATED BY REFERENCE

There are no amendments in this section.

DETERMINATION WHETHER REGULATIONS IMPOSE A MANDATE UPON LOCAL AGENCIES OR SCHOOL DISTRICTS

In the November 18, 2009, Adoption Order, No. 09-1118-13, the Energy Commission determined that the regulations:

> impose no direct costs or direct or indirect requirements on state agencies, local agencies, or school districts, including but not limited to costs that are required to be reimbursed under Part 7 (commencing with Section 17500) of the Government Code.

There was a similar preliminary finding in the NOPA (page 12). There were no comments on this matter throughout the rulemaking proceeding and this determination has not changed.

ALTERNATIVES TO LESSEN IMPACTS ON SMALL BUSINESSES

In the November 18, 2009, Adoption Order, No. 09-1118-13, the Energy Commission determined that the regulations

> Have no alternatives that would be more effective in carrying out the purposes of the Warren-Alquist Act without increasing burdens, or that would be as effective and less burdensome in carrying out the purposes.

There was a similar preliminary finding in the ISOR (page 8) and the NOPA (page 16).

FINDINGS

Based on the record of the rulemaking proceeding, in the November 18, 2009, Adoption Order, No. 09-1118-13, the Energy Commission made all findings required by the Warren-Alquist Act and the Administrative Procedure Act, such as those related to costs on businesses and local agency mandates and other applicable law. The Adoption Order reflected most of the initial findings in the NOPA, which includes a more detailed discussion of the underlying bases for these findings.

SUMMARY OF AND RESPONSES TO PUBLIC COMMENTS RECEIVED IN OPPOSITION TO THE REGULATIONS OR THE PROCESS BY WHICH THEY WERE ADOPTED

Pursuant to Government Code, section 11346.9, subd. (a)(3), the following summarizes and responds to all of the objections and recommendations directed at the 45-Day Language or the process by which it was proposed and adopted.

The Energy Commission received numerous comments in this rule-making. Due to the volume of comments, many of which overlapped and asserted the same points for varying reasons, many comments were grouped together to provide as uniform and concise a response as possible. Despite this, some duplication in the responses was inevitable but, to minimize duplication, the responses should be read as a whole.

After careful review, none of the comments received, save one, justify changing or foregoing adoption of these regulations at this time. The regulations are cost-effective where the record shows that televisions meeting the standards are currently available at competitive prices. The regulations will result in immediate energy cost savings for consumers and will not increase costs to consumer. These regulations fulfill the Energy Commission's statutory mandate to

> Prescribe, by regulation, standards for minimum levels of operating efficiency, based on a reasonable use pattern, and [authority to] prescribe other cost-effective measures, including . . . energy . . . consumption labeling not preempted by federal labeling law . . . to promote the use of energy . . . efficient appliances whose use, as determined by the [Energy Commission], requires a significant amount of energy . . . on a statewide basis. The minimum levels of operating efficiency shall be based on feasible and attainable efficiencies or feasible improved efficiencies that will reduce the energy . . . consumption growth rates. . . . The standards shall be drawn so that they do not result in any added total costs for consumers over the designed life of the appliances concerned.

(Pub. Resources Code, § 25402, subd. (c)(1)). The one change, in response to Comment 208, corrects three typographical cross-reference errors in the publicly-noticed proposed regulations. As described above, this is a non-substantive change without regulatory effect (1 Cal. Code Regs., § 40). The other two changes described above are not being made in response to comments.

Television Rulemaking Summary and Response to Public Comments

Comment No.[2] Comment I.D./Cite Commenter	Comment Summary	Responses
208 TN 53899 10-30-09 Panasonics Preliminary Comments. Panasonic	Panasonic identified three typographical cross-reference errors in the publicly-noticed proposed regulations.	These changes will be made pursuant to the review by the Office of Administrative Law as changes without regulatory effect. (1 Cal. Code Regs., § 40.)

Comments regarding the policy expressed in the Warren-Alquist Act of regulating appliance energy efficiency

201 Keith Wilson TN 53859 10-29-09 K. Wilson Public Comments Regarding TV Proposal.pdf	Several commenters objected to the policy expressed in the Warren-Alquist Act of regulating appliance energy efficiency, including by establishing television efficiency standards.	These comments were directed at the Energy Commission's underlying statute and the policy determination made by the Legislature to regulate appliance energy efficiency, not at the regulations or the process by which they were adopted.
202 TN 53871 10-29-09 E-mail Letter RE Opposition to the Propsed TV Energy Efficiency Standard. The Tech Source		

[2] The Comment Summaries and Responses refer to all the comments listed in the left column to which a discrete response is not provided.

255 Sayles TN 53938 10-28-09 Public Comments of C Sayles Regarding TV Energy Efficiency.pdf		
150 TN 53260 09-18-09 CEC Response to Complaint Form from R. Girling. R. Girling		
246 TN 53921 11-2-09 Plasma Display Coalitions Comments on Proposed Regulation.pdf Plasma Display Coalition		

118 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA argued that the regulations are not sound policy because of the long-term impacts on California's entertainment business because the regulations will significantly reduce the market for wide-screen digital HD TVs.	These comments were directed at the Energy Commission's underlying statute and the policy determination made by the Legislature to regulate appliance energy efficiency, not at the proposed regulations or the process by which they were adopted. Moreover, the regulations completely exempt large televisions 58 inches or greater.[3]
119 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
247 Turner TN 53922 11-2-09 E-Mail Comments from John Turner regarding 09-AAER-1C.pdf	Mr. Turner objects that regulating energy consumption of TVs is not sound public policy because some models of TVs will no longer be available.	The record establishes that televisions in all ranges of sizes, with a variety of features, are currently available that meet the standards. Although certain models that do not meet the standards will not be available (unless they can be changed to meet the standards), the selection available to consumers will not be diminished as a result of the regulations, and the costs to consumers to purchase energy-efficient televisions will not be increased. Examples include: Sony 52, "Vizio 42", Sylvania 32", Envision AOC 22", and Sylvania 19" models. (See Proposed Television Regulations and Draft Negative Declaration Report for Television Efficiency Standards, Energy Efficiency Committee Hearing, Staff Presentation, October 13,

[3] The regulations apply to screen areas up to 1400 square inches, which is the product of the width and height. Contemporary televisions have a aspect ratios of width to height of 16:9. The maximum diagonal screen dimension with this aspect ratio is just over 57 inches. Any reference to television size in a single dimension refers to the diagonal measurement of the screen.

		2009, slides 54-59, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF.) Further, a report submitted to the Energy Commission by CEA analyzing ENERGY STAR sales data shows that there is no correlation between efficiency and retail cost. (See C. Paul Wazzan, Paul Torelli, Dawn Eash, *A Review of the "December 2008 Draft Efficiency Standards for Televisions Proposed by the California Energy Commission*, March 23, 2009, p. 7, Fig. 1, available at http://www.energy.ca.gov/appliances/2008rulemaking/documents/comments/CEA_Commissioned_Review_of_Draft_Standards_TN-50828.pdf, and discussed in the Staff Report, p. 16.)
123 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA argues that the regulations are not sound policy because they do not distinguish consumer from professional model TVs, or televisions in commercial service, which may require operation in a brighter mode than required by consumers in the home.	The regulations encompass all televisions meeting the regulatory definition in Section 1602, subd. (v). The definition does not consider the use subjectively intended by the purchaser. Rather, it focuses objectively on the design functionality by the manufacturer. The technical and sales data for televisions underlying the analyses on which the regulations are based does not demonstrate a substantial difference between professional and consumer models. The "professional" models have additional features, but the test procedure allows these ancillary features to be disabled during product testing to demonstrate compliance with the standards. The record does not justify varying standards by the subjective uses of purchasers. Regarding the requirement that all televisions be shipped in a "home" mode, or at reasonable brightness and luminance settings, matching the "default" setting to that for which the overwhelming majority of televisions are purchased will maximize energy savings. The purchaser may increase or decrease the brightness and luminance for the particular conditions, whether in a home or a commercial setting. Moreover, computer monitors, that may not meet the definition of "television" in the regulations, are available to perform many of the functions sought by video professionals.
124 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		
125 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		

122 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		
181 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Coalition and California Retailers Association	The Consumer Electronics Retailers Coalition and California Retailers Association object on a variety of grounds to the decision to adopt television efficiency standards, expressing a preference to continue to reduce television energy consumption through voluntary improvements.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards. Notably, it does not assert or provide evidence that a voluntary program would be an equally effective and less burdensome alternative than the regulations. Further, voluntary measures are outside the scope of this proceeding in particular and outside the scope of mandatory regulations in general.
190 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and	The Consumer Electronics Retailers Coalition, California Retailers Association and Best Buy express a preference for national standards and encourage the Energy Commission to	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for national standards. The Energy Commission declines to forego adopting regulations where national standards

California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Coalition and California Retailers Association	forego adopting these regulations.	have not yet been adopted, and are at least years away from being effective.
191 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Coalition and California Retailers Association		
267 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		

182 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Coalition and California Retailers Association	The Consumer Electronics Retailers Coalition and California Retailers Association object that consumer actions will negate the anticipated benefits of the regulations and that voluntary measures are more effective.	The record does not establish that consumers will be able to circumvent the effect of the regulations, where all televisions available in the California market will meet minimum efficiencies, unlike the current state of the market.
283 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed Regulations.pdf Panasonic	Panasonic and CEA express a preference for a television rebate program to encourage the purchase of efficient models.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for a voluntary rebate program. Notably, it does not assert or provide evidence that a voluntary program would be an equally effective and less burdensome alternative than the regulations. Similar comments with data are addressed below, showing rebate programs are less cost-effective than these regulations. Further, voluntary measures, such as rebate programs, are outside the scope of this proceeding in particular and outside the scope of mandatory regulations in general.
141 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
287 TN 53963 10-02-09 P. Fannon for Panasonic Comments on	Panasonic expresses a preference for voluntary measures over mandatory	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary improvements.

TV Proposed Regulations.pdf Panasonic	efficiency standards.	Notably, it does not assert or provide evidence that voluntary improvements would be an equally effective and less burdensome alternative than the regulations. Further, voluntary measures are outside the scope of this proceeding in particular and outside the scope of mandatory regulations in general.
262 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.	Sony Electronics Inc. suggested that comments by others that efficient technologies would become more widely available and would come down in price in response to the regulations should not be given great weight.	This comment is not directed at the regulations or the process by which the regulations were adopted. It is directed at other comments. Further, the comments of manufacturers that will be responsible for complying with the regulations are equally, if not more suspect, where market research shows that energy efficiency, while a significant consideration for consumers, is not the top priority compared to the display and sound performance of televisions. The record shows that the standards can be met cost-effectively with existing technologies. The regulations will result in immediate energy cost savings for consumers and will not increase costs to consumer. These regulations fulfill the Energy Commission's statutory mandate to adopt cost-effective standards for feasible improvements of operating efficiency, labeling and other cost-effective measures for appliances that require a significant amount of energy on a statewide basis. (Pub. Resources Code, § 25402, subd. (c)(1).) The potential effects of the regulations on subsequent technological innovation do not justify foregoing adopting the regulations.
237 TN 53917 11-2-09 E-Mail Comments from TAC Inc. regarding Proposal to Regulate Television Electricity.pdf TAC Inc.	TAC, Inc., urges the Energy Commission to work with stakeholders to further energy efficiency.	This comment is not directed at the regulations or the process by which these regulations were adopted. The Energy Commission has more than fulfilled its obligations to involve the interested public in developing the regulations, and will continue to do so.
165 TN 53724 10-22-09 D. Jordan Public Comments Regarding TV Regulations.	Mr. Jordan objects that overregulation is destroying business in California and asks the Energy Commission not to	This comment is not directed at the proposed regulations or the process by which they were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary improvements.

D. Jordan	regulate TVs.	
171 TN 53742 10-22-09 Public Comments on Proposed Project.	The commenter objects to the adoption of television standards.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary improvements.
348 Greenstein Transcript Consumer Electronics Association	CEA objects that TVs should not be regulated like other utilitarian appliances.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards
22 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
23 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

12 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects to performance-based regulation of television efficiency.	This comment is not directed at the regulations or the process by which they were adopted. It is directed at the policy expressed in the Warren-Alquist Act to regulate appliance efficiency.

Comments regarding the effect of the regulations on interstate commerce

108 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA argues the regulations unduly burden interstate commerce.	The record does not support the assertion that the proposed regulations will unduly burden interstate commerce. The commerce clause of the United States Constitution, Art. I, § 8, cl. 3, protects against state action that either expressly discriminates against interstate commerce, or places an undue burden that is more than merely incidental on interstate commerce. (*Gen. Motors Corp. v. Tracy*, 519 U.S. 278, 300, 117 S.Ct. 811, 825, 136 L.Ed.2d 761, 781 (1997); *United States v. Lopez*, 514 U.S. 549, 559, 115 S.Ct. 1624, 1630, 131 L.Ed.2d 626, 637-38 (1995).) These regulations do neither, as they apply equally to televisions made within or outside the state and there is no evidence they will have a favorable effect on in-state manufacturers as opposed to out-of-state manufacturers. The implications for commerce in other states is not part of the calculus of a law that protects the public welfare in this state. (*People v. Fairfax Family Fund, Inc.* (1965) 235 Cal.App.2d 881, 883-884.) Moreover, the record supports the finding that there is no incremental cost to meet the standards. It is highly unlikely that Californians will cross state lines to purchase inefficient televisions that have the same features as more efficient televisions sold here. California retailers are presently losing market share to out-of-state and internet retailers by consumers attempting to avoid sales and use taxes, as stated on the record by, for example, BEST BUY, who expects that internet sales will rise from 8% to 10%, in the absence of the standards, due to attempts to avoid California sales tax. BEST BUY did not know what percent of the sales were from California versus out-of-state companies. BEST BUY did not provide any data to provide a nexus to lost sales due to the standards.

115 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the regulations will cause some televisions to be removed from the market in the United States because of the integrated nature of the retail market across state lines.	As described above, the regulations do not unduly burden interstate commerce. Indeed, this comment indicates that CEA's concern for such effects is overstated where it expects the national market to conform to California's standards. Regardless, California is not obligated to consider the effects of its regulations on markets in other states.
116 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

Comments regarding the effect of the regulations on California's economy

09 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA, Ms. Howe, the Consumer Electronics Retailers Coalition, the California Retailers Association, the Custom Electronics Design and Installation Association ("CEDIA"), Best Buy, CyberManor, Inc., AV Partners, Inc., Andrews Electronics, Wilshire Home Entertainment, TAC, Inc., Mr. D. Provenghi, and Mr. Elsner assert that	The record does not support the assertion that the regulations will result in fewer televisions, or televisions with fewer features, or at higher prices, available in California. The regulations establish technology-neutral performance standards, and apply to all kinds of televisions. The regulations do not ban any kind or size of television, or any television features. The technologies to make efficient televisions that meet the Tier 1 and Tier 2 standards[4] are off-the-shelf technologies that are currently incorporated into televisions being sold in California. After the regulations take effect, energy inefficient televisions presently offered for sale will be replaced by efficient televisions of comparable size, with comparable features, at

09 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	the regulations are not sound policy because of the long-term impacts on business and concomitant revenue and job losses that will result. They assert that the regulations are not sound policy because they will have detrimental, long-term economic impacts from decreased market selection, decreased television sales from retailers, increased internet sales, decreased sales tax revenue, and decreased repair and installation requests.	comparable prices, with comparable picture quality. The record shows that the standards do not detrimentally affect price or picture qualities, which are the two most critical metrics for television consumers. Based on the evidence in the record, the Energy Commission's analysis concluded that there are no incremental manufacturing costs to comply with the adopted efficiency standards. Television models that do not meet the standards are not significantly more or less expensive than television models which do meet the standards. The Staff Report[5] cites ENERGY STAR®[6] data referencing the manufacturer's suggested retail price (MSRP) of ENERGY STAR 4.0 compliant televisions. Page 11 of the report shows the suggested MSRP of a variety of mid- and large-screen flat panel televisions that did and did not meet the ENERGY STAR 4.0 standard (essentially the Tier 2 standard) in 2009 (four years before the Tier 2 standard will take effect) at comparable prices to each other. This demonstrates that consumers will not pay more as a result of the standards. See also Staff Report, page 15, n. 11; staff presentation on the standards, October 13, 2009, slides 54-59, docket no. 53682, available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF; and comments of the Natural Resources Defense Counsel at pages 48-49 of the transcript of the October 13, 2009, hearing on these regulations before the Energy Commission, available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_TRANSCRIPT.PDF. The Commission has identified many cost-neutral or -negative paths that allow manufacturers to improve efficiency without affecting television price. Therefore, the adopted standards do not deter sales in general, or incentivize internet sales in particular, which are
111 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
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[4] The Tier 1 standard is the energy consumption standard that will become effective January 1, 2011. The Tier 2 standard will become effective January 1, 2013. See Notice of Proposed Action ("NOPA"), p. 5; 20 Cal. Code Regs., § 1605.3, subd. (v)(2), Table V-2.

[5] 2009 Appliance Efficiency Rulemaking, Phase 1, Part C, Docket No. 09-AAER-1C, Staff Report, September 2009, CEC-400-2009-024 ("Staff Report"), identified as a document relied upon in the Initial Statement of Reasons ("ISOR"), herein.

[6] ENERGY STAR® program is a voluntary incentive program that is administered by the U.S. Department of Environmental Protection Agency ("EPA").

[7] Unless stated otherwise, general assertions herein to televisions that currently meet the Tier 1 or Tier 2 standards refers only to the on-mode power consumption requirements, and, according to comments opposing the regulations, are the most challenging and potentially costly to meet.

CEA		driven by other factors, such as the desire to avoid sales tax. (See, e.g., comments by the Consumer Electronics Retailer Coalition and the California Retailers Association, no. 180.) In addition, in preparing these responses, staff informally investigated sales at Best Buy and found that many of its California retail sales locations and its internet site offered Tier 1-compliant televisions.[7] Information recently obtained by the Energy Commission, from manufacturer websites, the Natural Resources Defense Council and staff attendance at the 2010 Consumer Electronics Show, demonstrates that televisions from every manufacturer meet the Tier 2 standards, including every "VIERA" television offered by Panasonic and every Samsung plasma. (See http://ces.cnet.com/8301-31045_1-10427428-269.html; http://www.pcmag.com/article2/0,2817,2357739,00.asp; http://www.letsgodigital.org/en/24562/lg-hdtv/.) These regulations are not imposing a price differential on consumers in the market. Contrary to these comments, the Energy Commission's analysis and the record show the regulations are expected to positively impact jobs and retailers. As stated in the Energy Commission's staff report, the regulations, once effective, will account for $8.1 billion in energy savings. This money will be available to consumers to stimulate the California economy, create jobs, generate revenues, and help businesses, unlike money spent on utility bills, most of which leaves the state to pay for fuel produced out-of-state to produce the electricity. (See Staff Report, pp. 16 – 18.) The record does not suggest previous efficiency regulations have resulted in appreciable increases in out-of-state and/or internet sales. Indeed, a report cited in a comment herein concluded that in the last 35 years, energy efficiency standards have allowed Californians to redirect expenditures toward other goods and services, creating about 1.5 million full time jobs with a total payroll of $45 billion, driven by well-documented household energy savings of $56 billion from 1972-2006. (Comment of Union of Concerned Scientists, November 2, 2009, p. 3, available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/comments/TN%2053934%2011-2-09%20Public%20Coments%20from%20Union%20of%20Concerned%20Scientists.pdf, citing Professor Roland-Holst, University of California – Berkeley, *Energy Efficiency, Innovation and Job Creation in California*, October 2008, p. 4.) The record does not show these regulations will have any different effect. The record does not provide evidence that the regulations will detrimentally affect custom installation or repair services. The regulations will not reduce the variety of sizes or features
162 TN 53715 10-14-09 J. Howe Public Comments Regarding Proposed TV Efficiency Standards. J. Howe		
163 TN 53715 10-14-09 J. Howe Public Comments Regardging Proposed TV Efficiency Standards. J. Howe		
164 TN 53715 10-14-09 J. Howe Public Comments Regardging Proposed TV Efficiency Standards. J. Howe		
178 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on		

Television Efficiency Standards. Consumer Electronics Retailer Coalition and California Retailers Association		of televisions available, or increase their costs. Custom retailers and installation and repair services will continue to be able to offer their products and services. Moreover, the regulations completely exempt large televisions 58 inches or greater, which often require custom installation. Thus, the regulations are not expected to impact custom repair and installation services. As to Mr. Provenghi's comment that utilities will raise rates to make up for increased efficiency, utilities in California have "decoupled" through California Public Utility Commission rules to break the direct relationship between the generation of electricity and the revenue of utilities. The rules are designed so utilities benefit from reduced consumption.
179 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics Retailer Coalition and California Retailers Association		
180 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics Retailer Coalition and California Retailers		

Association		
188 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics Retailer Coalition and California Retailers Association		
211 TN 53904 11-01-09 G. Van Zuiden for cyberManor, Inc. Comments Regarding Proposal to Regulate TV Electricity Usage.pdf CyberManor, Inc.		
214 TN 53906 10-31-09 E. Leicht Public Comments Regarding Proposal to Regulate TV Electricity Usage.pdf AV Partners, Inc		

215 TN 53906 10-31-09 E. Leicht Public Comments Regarding Proposal to Regulate TV Electricity Usage.pdf AV Partners, Inc		
233 TN 53913 11-2-09 Comments from Andrews Electronics Gerry Demple.pdf Andrews Electronics		
235 TN 53915 11-2-09 E-mail Comments Proposal to regulate TV Electricity-Docket-09-AAER-1C.pdf Wilshire Home Entertainment		
236 TN 53917 11-2-09 E-Mail Comments from TAC Inc. regarding Proposal to Regulate Television Electricity.pdf TAC Inc.		

252 TN 53937- 11-2-09 CEDIAs Comments on Proposed television Energy Efficiency Standards.pdf CEDIA		
253 TN 53937- 11-2-09 CEDIAs Comments on Proposed television Energy Efficiency Standards.pdf CEDIA		
264 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		
268 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		

269 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		
306 Demple Transcript CEDIA and Andrews Electronics		
308 Demple Transcript CEDIA and Andrews Electronics		
251 TN 53937- 11-2-09 CEDIAs Comments on Proposed television Energy Efficiency Standards.pdf CEDIA		
152 TN 53267 09-18-09 CEC Response to Compliant Form from D. Provenghi.		

D. Provenghi		
151 TN 53261 09-21-09 Public Comments Regarding Big Brother on Little TVs. Bob Elsner		
113 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that a study submitted to the record establishes the regulations will increase costs, which will result in decreased sales and significant job and tax revenue losses.	These comments do not justify changing or foregoing adoption of the regulations. CEA has not provided a marketing analysis as to why there will be a reduction in televisions being sold in California. Recent research by staff in response to these comments shows that Best Buy, a prominent retailer, currently appears to sell only Tier 1 compliant televisions in California. Energy Commission staff visited Best Buy stores at different locations in California and searched its websites in October 2009. During store visits, staff asked the sales representatives to quote prices for non-ENERGY STAR and ENERGY STAR qualified televisions. The Best Buy representative told the Energy Commission staff that Best Buy does not stock and does not sell non-ENERGY STAR televisions. This fact has not been disputed by Best Buy. Other data in the record shows that televisions currently meeting the standards are available at equivalent or cheaper prices than comparable "sister" models that use more energy than the Tier 2 standards. Examples include: Sony 52, "Vizio 42", Sylvania 32", Envision AOC 22", and Sylvania 19" models. (See Proposed Television Regulations and Draft Negative Declaration Report for Television Efficiency Standards, Energy Efficiency Committee Hearing, Staff Presentation, October 13, 2009, slides 54-59, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF.) Moreover, a detailed study submitted by the Union of Concerned Scientists comprehensively analyzes and refutes the conclusions in CEA's report. For example, the CEA report does not consider the effect redirection of the discretionary income that would have been spent on
117 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

		non-compliant televisions, if it were true that similarly-priced compliant televisions would not fill the demand. (Comment of Union of Concerned Scientists, November 2, 2009, p. 3, available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/comments/TN%2053934%2011-2-09%20Public%20Coments%20from%20Union%20of%20Concerned%20Scientists.pdf.) The data and evidence cited in CEA's study does not support the asserted loss of jobs and tax revenue. Because there will not be a change in availability of televisions with a variety of features at competitive prices, the record shows that there should be no change in the number of televisions being sold in California, and thus no change in sales tax revenue or retail jobs.
209 TN 53902 10-30-09 T. Morton Public Comments Regarding Proposal to Regulate TV Electricity Usage. Land & Sea Entertainment	Land & Sea Entertainment objects that the regulations will unduly impact its business of installing entertainment systems by removing some models of televisions from the market. Land & Sea Entertainment also objects that the regulations will result in reduced income tax revenue for the state.	There is no evidence or data in the record establishing a mass migration from retail stores in California to internet sales. The commenters have not submitted any evidence or data to back up their assertion.
210 TN 53903 10-30-09 L. SooHoo Public Comments Regarding Proposal to Regulate TV Electricity Usage.pdf Paradyme Sound & Vision 307 Demple Transcript CEDIA and Andrews	Paradyme Sound & Vision, CEDIA and Andrews Electronics object that the regulations will remove certain high-end TVs from the market and have a detrimental impact on its business of installing custom electronics in homes.	There is no evidence in the record that the regulations will adversely impact the sale of so-called "high-end" televisions. As described herein, the regulations will not hinder incorporation of additional features into televisions because the test method allows such features to be disabled during testing to demonstrate compliance, and televisions larger than approximately 58", which typically require custom installation, are exempted from these regulations.

Electronics 309 Demple Transcript CEDIA and Andrews Electronics		
184 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics Retailer Coalition and California Retailers Association	The Consumer Electronics Retailer Coalition and California Retailers Association argue the regulations are unsound policy because they will have unintended consequences that increase overall environmental impacts. For example, if the standards preclude integration of certain features, consumers will purchase separate components with those features, ultimately adding to the waste stream.	The test method is designed so that televisions are not penalized for auxiliary functions, which can be disabled for purposes of demonstrating compliance with the standards. In other words adding a built in DVD-player should not cause an otherwise compliant television to fail to meet the standard. The test method allows DVD or blue ray, integrated audio speakers, etc., to be disconnected or disabled during testing. The record does not demonstrate that the regulations will lead to increased waste products from demand for separate consumer electronics components.
260 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.	Sony Electronics Inc., objects that state-specific standards will shift sales to states with less stringent standards as states compete with each other, and that costs will escalate from a “patchwork” of federal, state and local regulations.	California cannot forsake its obligation to achieve feasible, cost-effective savings on the grounds that other states may regulate the same products. Moreover, the concern is overstated. No other states currently have efficiency standards for televisions. Since the Energy Commission adopted these standards, several other states have considered adopting identical or similar standards, thus increasing national consistency. (See, e.g., Massachusetts House Bill 3124 and Senate Bill 1524 (2009), New York Assembly Bill 9387 (2010), Washington House Bill 2416 and Senate Bill 6489 (2009 – 2010), and Wisconsin Senate Bill 450 and Assembly Bill 649 (2009).)

		Further, any federal standard will preempt any state standard, when it becomes effective, unless specifically exempted by the federal law. At that time, Sony will have the uniformity it seeks.
273 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy 274 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy	Best Buy objects that the regulations will remove some products from the market, increasing demand and prices for remaining models, which will lead to internet and out-of-state sales of televisions that do not meet the standards.	The Energy Commission record has established that manufacturers can meet the standards with technologies that do not change consumers' costs. Although some models may be removed from the market, others with similar features, in similar sizes at similar prices will be available. The regulations will not impact overall supply or demand. In the short term, as certain models are discontinued and others become in greater demand, the price and supply curves may change accordingly. However, they will ultimately return to status quo due to market forces and the economies of manufacturing because of the fundamental fact that the standards can be met with technologies currently available in televisions that are being sold at prices competitive to non-compliant televisions.
285 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed Regulations.pdf Panasonic 356 *Kline_Transcript* *JVC*	Pansonic, JVC, and Sony Electronics, Inc., object that the regulations will hinder innovation of features whose energy consumption cannot be dissociated from that of the TV in on-mode.	The Energy Commission deliberately designed the efficiency standards to limit only the energy consumption of the television's display and audio functions, and power factor. These limitations are reflected in the uniform test procedure adopted by the regulations, which requires sending a specific signal to the television, and measuring the resulting energy consumption due to displaying this signal. (See IEC 62087 ED.2 test procedure) The test procedure specifically excludes any other signals from being transmitted to the television that would consume energy. As the record shows, no signals from any option such as internet connectivity, IPod functions or 3D imaging, etc. are measured because these features may be turned off or disabled during the test procedure. (See test method for IEC 62087: Features that are covered see sections 11.4.3-11.4.4. Features to be disabled, see section 11.4.5.) Importantly, as noted at page 33 of the Staff Report, this test method was created by industry for its uniform product testing specifically because it only measures the energy consumption of the display and not any ancillary technologies or features. The efficiency standards do not restrict manufacturers as to the number of innovative options they may include in their televisions, nor do they restrict the energy consumption of any of

		these features. Sony states that the design of its television does not allow for the disconnection of internet and iPod processing units because the features are incorporated in the same processor used for all television operation. However, many Digital Signal Processing (DSP), filter, buffer, and amplifier circuits would not be utilized when these functions are not used. In addition, processor power consumption scales by the number of operations conducted. The power consumption is caused by transitions from on and off states in transistors. These state changes are made during calculations and operations. Therefore, when internet and iPod operations are not being made the processor consumes less power, increasing the ability of the television to meet the standard. In response to Sony's comment that the implementation dates of the proposed standards do not provide enough time to design compliance, the Tier 1 standards only require software changes to televisions and in some cases minor improvements in efficiency. (See Staff Report, p. 25.) The Tier 2 standards allow for two full design cycles from adoption to implementation. It is feasible for manufacturers to make televisions which meet standards in 2013 when over 300 television models meet the Tier 2 standards today across all screen sizes.
186 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer Coalition and California Retailers Association.	The Consumer Electronics Retailer Coalition and California Retailers Association object that the evidence on which the regulations are based does not adequately account for the anticipated increase in internet sales of cheaper, non-compliant televisions from out-of-state vendors.	The Warren-Alquist Act directs the Energy Commission to establish energy efficiency standards of appliances within the limits of the Commerce Clause. This regulatory scheme has been tested and applied to appliances and products for over 30 years and has proven to be successful in light of online markets and across the diversity of manufacturers, distributors, retailers, and markets. The assertion that the regulations will lead to increased internet sales of cheaper, non-compliant televisions is not supported by the record. The record shows that the regulations will not result in price increases where competitively-priced compliant televisions are currently available, and becoming more available. Internet sales will be driven by factors independent of the regulations. Moreover, it is more likely the regulations will transform other markets. The California market represents 12% to 16% of the US market for televisions. Because the standards do not

187 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer		increase consumer costs, manufacturers are more likely to see increased sales of "California" models elsewhere.

Comments regarding effect of the regulations on special application televisions

262 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.	Sony Electronics, Inc., asserts that the analysis on which the regulations is premised does not adequately consider the effect the regulations will have on demand for energy-efficient television display technologies. This increase in demand will lead to price increases for these proprietary technologies, in effect upending the cost-effectiveness analysis performed by the Energy Commission.	The record shows that the proposed standards can be met using existing technologies, whose use rights have already been obtained and are in common use, and are therefore available to comply with the standards. No data has been submitted, and the Energy Commission is aware of none, supporting the assertion that the regulations will cause the price of these technologies to increase, or that other currently affordable technologies will become prohibitively expensive.
223 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America	Philips Electronics and Sharp Laboratories of America object that the regulations will preclude the sale of televisions designed for use in hotels or other hospitality settings, because when turned off by the guest, they enter a "data acquisition mode" or "DAM", which	The objections to the standby mode energy consumption standards of Section 1605.3, subd. (v)(3)(B), misinterpret their applicability to "data acquisition mode" ("DAM"). The proposed regulations do not limit the energy consumption of this mode, nor do they prohibit the use of DAM. A television can be set to enter standby-passive mode when turned off, meeting the requirement, then enter DAM. In response to comments. staff investigated the interaction of the regulation and hotel

223 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America	uses more than 1 W. The regulations also require that televisions enter standby-passive or standby-active mode if they do not receive audio or visual inputs for 15 minutes. Section 1605.3, subd. (v)(3)(A). Phillips and Panasonic request that televisions sold to commercial buyers be exempted from the regulations. Sharp requests that Section 1605.3, subd. (v)(3)(B), be removed.	televisions with industry stakeholders and found that hotel televisions can feasibly meet the standards by the implementation date without sacrificing DAM mode features. (See Docket Log No. 54157 herein.) In addition, according to data in the Energy Commission's Appliance Database of standby power consumption for televisions, at least some of Phillips' hospitality televisions are currently manufactured to draw standby power of less than 1 watt. Exempting commercial televisions would result in forgone energy savings, and create enforcement loopholes as it is difficult to identify and define this category of television, when there is no evidence to substantiate such an action. The data set analyzed to develop, draft, and adopt energy efficiency regulations for televisions included commercial, industrial, business, and residential televisions. Commercial televisions were not exempted because the standby standards are feasible, regardless of how televisions are used. The record does not establish that a television which does not receive a signal for fifteen minutes and enters a standby-passive mode cannot be programmed to enter DAM or another mode, such as a standby-active mde, when a signal is received. Where the regulations allow televisions to operate in a standby-active mode, this can be used to perform the functions required for commercial televisions. As discussed further below in response to other comments about the labeling requirements, commercial purchasers can benefit as much as individual consumers from the energy consumption information provided at the time of purchase pursuant to the labeling requirements.
218 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America		
228 TN 53910 10-30-09 Comments of Philips Electronic Regarding Proposed TV 1 Philips Electronics		
286 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed Regulations.pdf Panasonic		
222 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf		

Sharp Laboratories of America		
229 TN 53910 10-30-09 Comments of Philips Electronic Regarding Proposed TV 1 Philips Electronic		
230 TN 53910 10-30-09 Comments of Philips Electronic Regarding Proposed TV 1 Philips Electronic		
219 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America		
256 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.	Sony Electronics, Inc., requests that the requirement to enter standby passive mode when turned off should be deleted, because it will preclude the use of some features.	As discussed above, the requirement to enter standby passive mode when turned off will not preclude operation of DAM mode, where DAM mode may be automatically entered after initially entering standby passive mode.

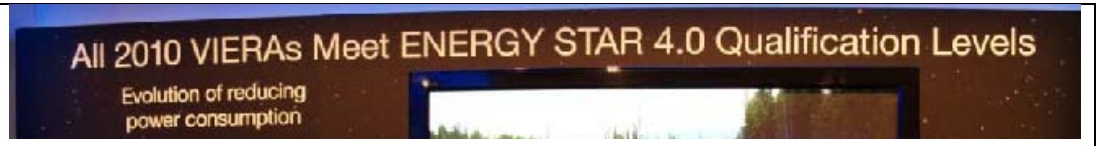
Comments that the regulations will hinder innovation of television technologies

2 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the standards will be detrimental to innovation, consumers, and industry.	This comment is not directed at the regulations or the process by which they were adopted. It is directed at the policy expressed in the Warren-Alquist Act to regulate appliance efficiency.
189 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics Retailer Coalition and California Retailers Association	Several commenters, including CEA, the Consumer Electronics Retailer Coalition and California Retailers Association, argue the regulations are unsound policy because they will have a detrimental effect on product innovation, because most new products are less efficient than subsequent designs.	The technical feasibility findings of the Energy Commission's staff report describe various reasons why innovation will not be negatively affected by the adopted regulations. (See Staff Report, pp. 32 – 33.) Indeed, the opposite is expected. "The proposed California standard will encourage innovation by providing momentum for companies to adopt currently available energy efficiency technologies and to also justify investments in various emerging technologies. Currently available technologies allow TVs to meet the Tier 2 levels today . . . . " Consumers are not expected to see a price increase, but should realize significant energy savings. (B. Berkoff to J. Pfannenstiel, LCD TV Association, January 19, 2009, p. 1, cited in Staff Report, p. 14, n. 10.) The record does not establish that manufacturers are incapable of making televisions which are innovative and energy efficient if efficiency is a design criterion. Further, as described herein, the test method allows additional features, such as three-dimensional ("3D") imaging, to be disabled during testing to measure energy consumption in 2D mode.
91 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

98 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based does not consider the impacts of the regulations on innovative features, price, or screen size.	The record does not demonstrate that the regulations will negatively impact the efficacy of televisions for consumers. However, the record does show that existing technologies can be used to comply with the standards, and that televisions already meeting the standards are available in a variety of sizes, with a variety of features, at competitive prices from multiple manufacturers. Examples include: Sony 52, "Vizio 42", Sylvania 32", Envision AOC 22", and Sylvania 19" models. (See Proposed Television Regulations and Draft Negative Declaration Report for Television Efficiency Standards, Energy Efficiency Committee Hearing, Staff Presentation, October 13, 2009, slides 54-59, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF.)
24 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the regulations reflect a "one size fits all" attitude that does not properly account for the various technologies and will hinder development of new television technologies that may not initially meet the efficiency standards.	The standards establish a performance standard that provides maximum flexibility to comply, relaxes the standard proportionately to the screen size, and completely exempts televisions greater than 58 inches. This affords maximum latitude for manufacturers to determine how to comply. Where all manufacturers currently offer televisions that meet the Tier 1 and 2 standards, the record does not show that sufficient time and resources are unavailable to develop additional technologies to increase television efficiency, should manufacturers wish to do so. However, the regulations themselves do not require such R&D where they are currently met with existing cost-effective technologies.
105 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
341 Greenstein Transcript Consumer Electronics Association		

21 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the regulations will increase costs of research, thereby stifling innovation, because currently available technologies would not have been pursued had the regulations been in effect in the past.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards. Further, the effect on the television market, had regulations been adopted in 2001, is purely speculative. It is conceivable that today's television technologies would have been developed to meet the efficiency standards, had energy consumption been a design consideration commensurate with other factors such as picture quality. Similarly, it is impossible to speculate as to what might happen to the next digital television technology (DTV) technology, with or without regulations. Because televisions today can meet the standards without adding consumer costs, manufacturers are in a position to invest profits from sales into further R&D, and incorporate efficiency as a design consideration.
88 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the regulations will hinder development of new television technologies that may not initially meet the efficiency standards.	These are summaries of comments, each of which is responded to where it is made.
99 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

19 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	Advocates for Responsible Energy Consumption and CEA object that the regulations will hinder development of new television technologies on multiple grounds, including that some innovations may not be pursued or brought to market because they do not initially meet the efficiency standards, and that the regulations will increase costs, thereby limiting resources for subsequent research and development.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards. Further, where all manufacturers currently offer televisions that comply with the regulations at competitive prices, the regulations do not require additional innovation. Should manufacturers choose to engage in additional R&D, resources from sales of televisions that presently comply will be available to fund any further R&D. The performance-based regulations set a level playing field, where all manufacturers are faced with the same costs. The record does not establish that the regulations will create a barrier to compliance or a disparate disincentive to passing along future R&D costs, if any, to the consumer. The record shows that there are over 1,000 television models that meet the proposed Tier 1, and over 300 models that meet Tier 2, standards. New innovative technologies such as light emitting diodes, OLEDs, HCFLs, and light recycling films provide highly feasible paths to compliance. At the most recent annual Consumer Electronics Show (CES), major manufacturers announced that 100% of their product lines would be compliant with Tier 2 on mode power requirements by claiming to meet ENERGY STAR 4.0. For example, at the CES, Panasonic claimed all its 2010 television models will meet ENERGY STAR 4.0 requirements, which include on mode power standards identical to the Tier 2 adopted regulations
100 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
101 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
102 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		

CEA		
103 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
104 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		The record does not establish that technologies are inherently inefficient when initially developed, as asserted by CEA. The regulations will ensure that efficiency is a design criterion from inception.
106 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		This comment demonstrates a fundamental misunderstanding of performance-based standards. Performance standards assure that product development process includes the regulatory design criterion from the beginning of the process, avoiding the cost of “re-engineering” already-developed products to meet regulatory policy goals. Accordingly, these performance-based standards do not per se constrain product development. To the contrary, the efficiency standards, can also, like any other product development goal,

120 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		encourage innovation.
231 TN 53912 10-21-09 R. Newll Comments to the Proposed Television Efficiency Standards.pdf Advocates for Responsible Energy Consumption		
311 Johnson Transcript Consumer Electronics Association		
317 Johnson Transcript Consumer Electronics Association		

318 Johnson Transcript Consumer Electronics Association		
319 Johnson Transcript Consumer Electronics Association		
320 Johnson Transcript Consumer Electronics Association		
321 Johnson Transcript Consumer Electronics Association		

322 Johnson Transcript Consumer Electronics Association		
323 Johnson Transcript Consumer Electronics Association		

Comments that the regulations will hinder the efficacy of televisions for consumers.

92 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA argues that the regulations do not satisfy the statutory criteria that the regulations do not undermine the efficacy of televisions, and that the Energy Commission failed to consider efficacy in its analysis.	In developing the regulations, the Commission considered television efficacy. The regulations establish performance standards for on-mode, passive standby, power factor, and luminance. On-mode power consumption is measured with the ancillary features temporarily disabled. These standards and the test methods for demonstrating compliance were established to avoid inhibiting features such as clarity, size or sound, or the integration of additional features. Currently available technology may be used to meet the standards, while allowing development of new, energy-efficient technologies.
93 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency		

Standards for TV.pdf CEA		
94 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

Comments that other, particularly voluntary measures, are at least as effective as and less burdensome than the regulations.

8 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA comments that manufacturers have been voluntarily improving energy efficiency for years in the absence of regulations.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards.
13 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA encourages the Energy Commission to achieve energy savings through voluntary means.	This comment is not directed at the regulations or the process by which they were adopted. It is directed at the policy expressed in the Warren-Alquist Act to regulate appliance efficiency. Voluntary standards are outside the scope of this rule-making.
312 Johnson Transcript Consumer Electronics Association 314 Johnson	CEA objected extensively in oral and written comments that the evidence on which the regulations are based is obsolete and therefore does not include voluntary improvements in energy efficiency. Thus, the analysis overstates projected energy savings and does not establish the regulations are cost-effective. For these and many other reasons, voluntary measures are at least as effective and less burdensome alternatives to the regulations, which will	The proposed standards are cost effective to consumers, technically feasible with existing technologies, and will save a significant amount of energy on a statewide basis. The proposed regulations are technology-neutral, and all manufacturers are already meeting the proposed regulations. The regulations do not preclude development of additional display technologies. Subsequent research and development should include efficiency as a design criterion. As described in response to more specific comments below, voluntary measures are not as effective as the regulations. As described in the Staff Report at pages 28 – 29, the voluntary ENERGY STAR® program, for example, would only obtain 27% of the calculated $8.1 billion in potential energy efficiency savings from the efficiency standards. Further, the

Transcript Consumer Electronics Association 340 Greenstein Transcript Consumer Electronics Association	hinder innovation of additional features and display technologies.	regulations will not hinder innovation, as the test method allows additional features to be turned-off or disconnected when testing energy consumption. The energy consumption of additional features will not be a limiting factor. The record does not show that these regulations will impinge technological progress, design freedom, retailer interests, or consumer rights.
245 TN 53921 11-2-09 Plasma Display Coalitions Comments on Proposed Regulation.pdf Plasma Display Coalition 242 242 TN 53921 11-2-09 Plasma Display Coalitions Comments on Proposed Regulation.pdf Plasma Display Coalition 254 IA 254 TN 53937- 11-2-09 CEDIAs Comments on Proposed television Energy Efficiency	Several commenters, including CEA, the Plasma Display Coalition and CEDIA, assert that the regulations will impose a greater burden than voluntary efforts. The Plasma Display Coalition also asserts that the regulations will have a detrimental effect on tax revenue and business.	The record shows that voluntary progress to date leaves available a significant amount of feasible and cost-effective energy savings. Voluntary programs are not assured of delivering actual savings because market penetration is not assured. Voluntary measures are additive to but are not a substitute for mandatory, minimum efficiency standards. The Plasma Display Coalition comment specifically refers to a meeting between Energy Commission staff, the Consumer Electronics Association, the Plasma Display Coalition, and other industry representatives. The industry representatives made proposals such as a massive digital television (DTV) acceleration program where the Energy Commission would provide rebates for televisions to encourage consumers to replace their old energy efficient cathode ray tube (CRT) televisions with flat panel televisions. PDC and CEA did not identify a funding source for their proposal. No infrastructure for implementing such a program was identified. Estimates of savings and the calculations and assumptions to arrive at those savings were not provided. The Energy Commission's authority to implement such a program was not identified. Without this information, the Energy Commission cannot appropriately consider such an alternative proposal. As part of its comment letter herein dated November 2, 2009, CEA submitted an Assessment of the Energy Savings Potential of Policies and Measures to Reduce Television Energy Consumption, by Kurt W. Roth and Bryan Urban, of the Fraunhofer Center for Sustainable Energy Systems, October 28, 2009 ("Fraunhofer"). The Fraunhofer report discussed a DTV rebate program plan in detail. Fraunhofer's report and CEA's suggestions about a DTV acceleration program is costly for California's ratepayer funds. The proposal suggests that California provide a $50 rebate a year to replace 200,000 CRT televisions with DTV. This investment is not cost effective. $50 (rebate) X 200,000 televisions

Standards.pdf CED		=$10,000,000=$10 million. Cost of 1 GWh (gigawatt-hour, equal to 1,000 kilowatt-hours, or KWh) of electric power at 14¢ a KWh is $140,000. Dollar savings generated by 10 GWh X $140,000= $1,400,000=$1.4 million. This proposal would spend $10 million a year to receive $1.4 million in annual energy savings.
232 TN 53912 10-21-09 R. Newll Comments to the Proposed Television Efficiency Standards.pdf Technical Programs, Advocates for Responsible Energy Consumption	Advocates for Responsible Energy Consumption asserts that voluntary programs are a better policy and that the regulations undermine voluntary efforts.	The regulations are reasonable, technology neutral and facilitate consumer choice. These regulations and the ENERGY STAR® program 4.0 and 5.0 will work together to make an efficient television market in California. The goal of the voluntary ENERGY STAR® program is to encourage the most efficient products in the market. The goal of the mandatory Energy Commission regulations is to achieve significant energy savings by precluding the least efficient products from the market. These two goals are not contradictory and there is value to both pushing (with minimum standards) and pulling (with voluntary programs) the market towards efficiency. This dynamic was considered in the staff report for television efficiency regulations, which found that mandatory and voluntary standards are both useful but not mutually exclusive approaches. (Staff Report, p. 29.)
350 *Greenstein Transcript* *Consumer Electronics* *Association*	CEA objects that voluntary measures will result in energy savings similar to that achieved by the regulations, and that the regulations will hinder further improvements in efficiency.	These regulations are not an attempt to schedule or force energy innovation. The standards only require a minimum efficiency level that can be met with existing technologies already developed and currently being sold in retail stores in California. History has shown that innovation has and will continue to be made through a variety of paths. In the late 1990's cathode ray tube (CRT), televisions were converting to flat surface and picture quality was improving. CRT TV can also be used to display high definition digital signal with great quality. Nevertheless, CRT televisions lost market share to flat panel plasma, DLP's and LCD televisions. DLP and plasma televisions then lost their market share to LCD televisions. CCFL LCD televisions are losing their market share to LED LCD televisions. Innovations take their own path. For example, Toshiba and Cannon stopped manufacturing of energy efficient surface-conduction electron-emitter display (SED) that offered richer colors, faster response and a better picture quality. As stated elsewhere in the record, energy efficiency is among several factors valued by consumers, and it is not always valued the highest Different technologies succeed and fail for a variety of reasons. It would be speculation to say what might happen to the next television technology, with or without regulations. The proposed regulations simply ensure that the path will remove the older energy-wasting televisions from the market. All manufacturers provide televisions that are compliant with ENERGY STAR specifications and are capable of meeting these standards at competitive

		prices. The Energy Commission's Tier I and Tier 2 regulations are similar to ENERGY STAR specifications 3.0 and 4.0. Tier 1 and Tier 2 will become effective after the ENERGY STAR program transitions to its next versions. Voluntary measures will remain in place to encourage further efficiency improvements. Moreover, the record does not show that had efficiency been a design requirement due to earlier adoption of standards that currently available technologies would not have been refined earlier to meet them, or that other technologies would not have been developed. If past performance is indicative of the effect of efficiency standards, the market will not suffer – it will benefit. The Energy Commission presently regulates 23 different appliance product categories. There has been no evidence that any of those regulations have prevented technologies and innovations for those product types or reduced consumer demand. To the contrary, costs have declined while product variety has increased in volume and features.
7 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based fails to account for voluntary improvements in energy efficiency, including a purported 41% increase in the efficiency of ENERGY STAR-rated televisions.	Staff analysis of the record shows that the trends of television manufacturers' programs and voluntary efforts have not reduced energy consumption for televisions actually sold in California for the last ten years. To the contrary, the data in the record shows that there has been a continuous and significant increase in the energy consumption of televisions being sold in California. Notwithstanding the increase in efficiency of some models, there has been a steady increase in television energy consumption in California by a factor of 3 times the energy consumption in 1990. Despite the presence of voluntary Energy Star standards, staff analysis detailed in the Staff Report shows that residential energy consumption attributable to televisions has increased from 3% to 10% of household electricity use over the past 10 years, and is expected to increase to 18% in 2023 in the absence of the mandatory minimum standards. Voluntary standards do not assure market penetration; they merely reflect potential savings. The regulations will ensure the savings are achieved. Television manufacturers' efforts to move the California market to more efficient televisions,
9 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

10 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		as asserted by CEA, have failed to stabilize growth in energy consumption due to televisions. The record supports the determination that the mandatory minimum efficiency standards will reduce the future growth of television energy consumption. With respect to ENERGY STAR in particular, despite the increase in potential energy savings, improvements have not stopped the increase in residential energy consumption. The Energy Commission estimates that the energy consumption of televisions between the years 2007 and 2009 have increased due to the following factors: • Downward trend in prices of large screen high-definition flat panel digital televisions • Federal Communications Commission's mandatory analog to digital conversion, causing a surge of sales of digital flat panel televisions of larger screen sizes to replace existing energy efficient Cathode Ray Tube (CRT) televisions of smaller screen sizes. There would be a significant loss of energy savings in California with an ENERGY STAR®-only program. CEA's comments include a report showing the lost potential energy savings in this voluntary program. The graph for LCD v 3.0 shows that about 95 % of the televisions will meet our Tier 1 efficiency, which is based on ENERGY STAR® Version 3.0. (Fraunhofer Center for Sustainable Energy [used PG&E study to show energy savings in a voluntary market]. Page 18, Figure 4: Projections for Portion of Annual Sales Meeting ENERGY STAR® Version 3.0 and 4.0 specifications). Tier 1 standards are more stringent than ENERGY STAR® Version 3.0 and will contribute to additional energy savings from the voluntary program for years 2011 to 2013 and will require100% ENERGY STAR® compliance. The line for LCD v 4.0 is ENERGY STAR® Version 4.0, which is similar to the Tier 2 efficiency standards that will be effective beginning in 2013. The graph for the LCD v 4.0 from 2013 shows only 45% compliance through 2018, and shows a maximum compliance level of 70%. Tier 2 requires 100% compliance starting in 2013. There is significant additional energy savings from the Tier 2 efficiency standard, as represented by the area above the Plasma and LCD v 4.0 lines up to 100%. Moreover, the improvements in the "global marketplace" have not been entirely voluntary. While the US only has a voluntary program at this time, many other countries, including those in the European Union, Australia, China, India, and Japan limit television energy consumption. (See, e.g., information about Australia's regulations available at: http://www.energyrating.gov.au/tv2.html; the European Union at:
11 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
28 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
127 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on		

Appliance Efficiency Standards for TV.pdf CEA		http://ec.europa.eu/energy/efficiency/ecodesign/legislation_en.htm; and Japan at: http://www.eccj.or.jp/top_runner/e_0710.html.) Manufacturers have been required to reduce television energy consumption. The global decrease in energy consumption may be due to these countries requiring energy efficiency increases in televisions. Staff agrees with the CEA comments concerning the number of ENERGY STAR listed televisions showing that the efficiency levels required by the standards are feasible. However, the Energy Commission must consider the entire population of televisions being sold in California, i.e., the numbers of both ENERGY STAR and non ENERGY STAR televisions being sold in California, in its analysis for determining total energy use and potential energy savings for California with efficiency standards. CEA's statements do not consider the energy savings attributable to removing those televisions that do not meet ENERGY STAR® Version 3.0 which are substantially equivalent to the Tier 1 efficiency standards in California. CEA also does not provide any sales data supporting reductions in statewide energy consumption (which is part of the statutory criteria for the regulations - see Public Resources Code, § 25402, subd (c)) due to sales of ENERGY STAR® 3.0 compliant televisions. Prior to November 2008, ENERGY STAR® only required standby energy use of 3 watts or better to meet the qualifications; there was no power consumption requirement. In November 2008, ENERGY STAR® Version 3 for televisions added on mode power consumption requirements. Most existing televisions met the ENERGY STAR® level 3.0 prior to November 2008, and for those that did not, ENERGY STAR® Version 3 could often be met by lowering the panel brightness to consume less energy without making hardware changes. (See Staff Report, p. 25; see also comments submitted herein by the Natural Resources Defense Counsel, November 2, 2009, p.2.) ENERGY STAR® Version 4 (equivalent to the Tier 2 level), which will be effective in May of 2010, will require hardware that is being used on many televisions today. Although ENERGY STAR Version 3.0 was met more often than expected, subsequent versions of ENERGY STAR are not expected to be similarly met in either offerings or sales. The Staff Report contains data showing that average size Plasma, LCD, and CRT televisions use 688 KWh/yr, 274.6 KWh/yr, and 192.6KWh/yr respectively. Though CEA states that the energy consumption of ENERGY STAR® digital TVs has improved by more than 41 %, CEA does not explain how this was achieved. It is unclear if CEA is accounting for energy reductions due to adjustment of brightness control or the implementation of a
326 Belt Transcript Consumer Electronics Association		

		new technology. Without detailed information, this generalization does not refute the specific data in the record supporting the regulations. The ENERGY STAR® program will not prevent the manufacture and sales of very inefficient televisions. The ENERGY STAR® program itself recognizes that voluntary measures alone are not enough to realize the full potential of energy savings. In a letter addressed to the Energy Commission, Kathleen Hogan, Director of ENERGY STAR® program, noted the important differences and limitations of voluntary measures versus mandatory standards. Voluntary measures create and compel the highest efficiency products in the market. Mandatory standards push the least efficient sections of the market to meet mainstream or easily achievable efficiencies. (K. Hogan, Unites States Environmental Protection Agency, to H. Singh, Energy Commission, July 23, 2008, available at http://www.energy.ca.gov/appliances/2008rulemaking/documents/2008-07-16_workshop/comments/Kathleen_Hogan_USEPA_Comments_Television_Eficiency_standards.PDF.) The results of transforming the least efficient part of the market were used to calculate and account for greenhouse gas reductions attributable to the adopted regulations.
5 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that voluntary efforts have resulted in significant energy savings and that televisions, on average, use too little energy to be worth regulating.	As described above, televisions collectively use a significant amount of energy in California, and these regulations comprise a cost-effective, feasible method for reducing that energy use by a significant amount.
26 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf	CEA encourages the Energy Commission to raise consumer awareness rather than regulating efficiency.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary measures. Notably, it does not assert or provide evidence that a voluntary program would be an equally effective and less burdensome alternative than the regulations. Further, voluntary measures are outside the scope of this proceeding in particular and outside the scope of mandatory regulations in general.

CEA		
27 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that various alternative measures, as described further, are equally effective and less burdensome than the regulations.	These are summaries of other comments that are responded to where each is made.
126 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
30 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that voluntary measures and consumer education campaigns are at least as effective as and less burdensome than the regulations. In particular, education campaigns could save as much as 555 GWh a year of electricity.	Voluntary measures are outside the scope of this rulemaking in particular and outside the scope of mandatory regulations in general. The Fraunhofer study which CEA submitted to support its comment concedes that an "advertising campaign to convince TV owners to place their TVs into less bright preset viewing modes would achieve very low penetration rates." 555 GWh is the upper bound "ideal world" energy savings, and the report estimates that the actual savings would be much lower. No education program can change the energy consumption level of a 600 watt consuming television into a 100 watt consuming television, as required by the standards. Consumer education represents another energy saving opportunity in the state that remains viable even with the regulations in place. And even if an education campaign was implemented, it

		would build on the savings from the regulations. Efficiency is not a zero-sum proposition.
32 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that voluntary measures such as a rebate program are at least as effective as and less burdensome than the regulations, and could save as much as 70 GWh a year of electricity.	Voluntary measures are outside the scope of this rulemaking in particular and outside the scope of mandatory regulations in general. Moreover, no voluntary rebate program can take the place of minimum efficiency standards.
128 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the savings it estimated from a comprehensive, voluntary program would be at least as effective as and less burdensome than the regulations.	The energy savings of CEA's Fraunhofer report, on page 18 and 19, projected over 11 years of implementation, equates to 2,609 GWh/year. This is about 40% of the regulations' estimated 6515 GWh /year energy savings. Even taking the comment at face value demonstrates that voluntary standards are not as effective as the regulations.
129 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
130 TN 53944 11-02-09 CEA Comments Regarding Draft	CEA objects that a comprehensive, voluntary program would be at least as effective as and less burdensome than the regulations, and that the regulations	The Energy Commission database shows that there are many televisions that use greater than 1 watt in standby mode. The regulations will ensure all televisions sold in California comply with 1 watt standards.

45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	should not be premised on savings from the standby mode standard where more than 90% of televisions currently on the market meet the standards.	
131 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that projected energy savings from voluntary measures are at least as effective as and less burdensome than the regulations, where the most recent year of sales data shows a trend toward smaller television purchases.	Assuming arguendo that recent data shows most television sales are smaller than 37, that does not necessarily mean that the new televisions are replacing televisions of equal size and resulting in net energy savings. This statistic does not refute the record that television energy consumption continues to trend upwards from the purchase of larger and more televisions. (See, e.g., comments of CEA's economist at December 15, 2008, Efficiency Committee workshop, cited in Staff Report at p. 17, n. 16, that television sales are expected to increase 6.5% annually over the next 4-5 years.)
134 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA notes that a voluntary measure of auto power down could increase costs and interfere consumer expectations.	This is not a comment directed at the regulations. It is a caveat undermining its own comment that voluntary measures, including an auto-power down feature, are at least as effective and less burdensome than the regulations.
136 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA, the Consumer Electronics Retailers Association and California Retailers Association object that a comprehensive, voluntary program, including voluntary improvements by manufacturers, a consumer education program to encourage consumers to voluntarily reduce the brightness settings on their TVs and make	A consumer education program directed at pre-existing televisions would not achieve the energy savings from standards going forward, and is outside the scope of this rule-making. Nevertheless, efficiency and energy savings are not a zero sum proposition. All feasible energy savings should be captured, even if they are not a result of regulatory standards. The Energy Commission staff welcomes a consumer education program and hopes CEA will fund such a program in the near future. Besides being outside the scope of this rule-making, a rebate program is not as effective as standards for multiple reasons. It would not result in as much market penetration, and

136 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	purchase decisions considering efficiency, automatic brightness controls, and a rebate program to encourage consumers to purchase more energy-efficient televisions, would be at least as effective as and less burdensome than the regulations.	energy savings, as the standards. As discussed above, it would not be cost-effective compared to the regulations that will not result in increased costs to consumers. In order for the voluntary programs suggested to achieve greater energy savings than the regulations, at least some new televisions would have to be more efficient than required here, where voluntary programs necessarily achieve less than 100% market penetration. The costs of such programs have not been provided to demonstrate their cost-effectiveness. Moreover, many aspects of the programs suggested are required by the regulations, including forced menus, automatic sleep modes, minimum panel energy consumptions, and power factor requirements. Automatic brightness control is one option through which manufacturers can meet the regulations. Gary Koontz from TAOS at the October 13, 2009, hearing on these regulations submitted comments that television energy consumption can be reduced up to 30% through automatic brightness control sensors, and the cost to implement this technology is low. (See http://www.energy.ca.gov/appliances/2009_tvregs/documents/comments/TN%2053704%2010-13-09%20Powerpoint%20Presentation%20on%20Digital%20Ambient%20Light%20Sensing%20for%20FPD%20Televisions.pdf, pp. 6 and 13.) Finally, a comprehensive voluntary program is outside the scope of this rule-making to adopt minimum efficiency standards for televisions.
137 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
310 Johnson Transcript Consumer Electronics Association		
324 Johnson Transcript Consumer Electronics Association		

196 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Association and California Retailers Association		
198 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Association and California Retailers Association		
138 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency		

Standards for TV.pdf CEA		
315 Johnson Transcript Consumer Electronics Association		
327 Belt Transcript Consumer Electronics Association		
328 Belt Transcript Consumer Electronics Association		
329 Belt Transcript Consumer Electronics Association		
331 Belt Transcript Consumer Electronics		

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332 Belt Transcript Consumer Electronics Association		
333 Belt Transcript Consumer Electronics Association		
335 Belt Transcript Consumer Electronics Association		
325 Johnson Transcript Consumer Electronics Association	CEA and JVC object that a preference for voluntary measures is consistent with objections to minimum standards.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary improvements. Voluntary measures are outside the scope of this rulemaking in particular and outside the scope of mandatory regulations in general.
357 Kline Transcript JVC		

203 TN 53883 10-21-09 Position of LCD TV Manufactures RE the CECs Proposal. JVC, Sony, P&F USA, Panasonic, Sanyo, Toshiba, Sharp Laboratories of America, and LG	This comment, jointly submitted by the television manufacturers: JVC, Sony, P&F USA, Panasonic, Sanyo, Toshiba, Sharp Laboratories of America, and LG, expresses support for the comprehensive voluntary program that CEA asserts is at least as effective as and less burdensome than the regulations.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary measures. Moreover, voluntary programs are outside the scope of this rule-making for feasible and cost-effective efficiency standards.
213 TN 53906 10-31-09 E. Leicht Public Comments Regarding Proposal to Regulate TV Electricity Usage.pdf AV Partners, Inc.	AV Partners, Inc., objects that the regulations will not result in actual savings due to voluntary progress that will cause the market to naturally meet the standards.	If this comment is true, the standards will have no practical effect, and thus will not impose any burden. Further, the power consumption data show many televisions currently available fail to meet even the minimal 2011 Tier 1 standards, despite the availability of technology and designs that impose no additional cost on consumers, and that energy consumption will increase without the standards.
263 TN 53940 11-2-09 Comments from Digital Entertainment Group.pdf Digital Entertainment Group	Digital Entertainment Group objects that the regulations will have a detrimental effect on business, constrain innovation, and expresses a preference for voluntary measures.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary measures. Moreover, voluntary programs are outside the scope of this rule-making for feasible and cost-effective efficiency standards.
280 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed Regulations.pdf Panasonic	Panasonic objects to the regulations and expresses a preference for voluntary measures and consumer education programs.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses a preference for voluntary improvements. Voluntary measures are outside the scope of this rulemaking in particular and outside the scope of mandatory regulations in general.

55 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based fails to account for voluntary improvements in energy efficiency of 15 – 22% per year. The evidence of current energy consumption by televisions being marketed does not reflect recent improvements in efficiency or the increasing sales of more efficient TVs. Between December 2007 – October 2009, increasing sales of ENERGY STAR TVs resulted in reduced power consumption of the average television by 29.3% (sales weighted).	The assertions in these comments and the data on which they purport to rely present serious deficiencies. CEA incorrectly assumes a nexus between efficiency improvements in only some models of new televisions with significant increased sales and significant energy savings. This connection is not supported by California sales data in the record, and contrary sales data has not been provided to demonstrate otherwise. Though CEA asserts that the energy consumption of ENERGY STAR® digital TVs have improved by more than 41% and reduced power consumption by 29.3%, the baseline on which this is calculated is not described. The data provided by the commenter, in particular the volume of television sales nationwide, is not California specific data necessary to compare results. CEA failed to identify how many televisions, of each size, were sold in California. While the Energy Commission considered national data, it also considered California-specific data. It must also be considered that the ENERGY STAR specifications became effective in November 2008. CEA has not provided any sales information from January–October 2008, as to how many televisions were sold prior to the ENERGY STAR program. CEA does not distinguish ENERGY STAR televisions sold from November 2008 – October 2009. CEA does not identify how many televisions sold from 2007 through 2009 were Plasma, LCD, CRT, and DLP. While the analysis claims to be sales weighted by size, it is unclear how technology type (particularly LCD versus plasma) was weighted in the analysis. The ENERGY STAR December 2007 dataset is a misleading title. This is the data used to determine the first on mode power levels for the then upcoming ENERGY STAR 3.0 specification. This data includes televisions which may still exist in the distribution chain but cannot be included in the October 2009 ENERGY STAR database. The conclusion also fails to distinguish between gains obtained from improving standby power consumption. The October 2009 ENERGY STAR database includes televisions manufactured in 2007, 2008, and 2009. It is unclear how or if CEA has removed energy efficient televisions manufactured in 2007 and 2008 from its analysis. If these televisions are not removed, the analysis double-counts efficient televisions from previous years. CEA's assertions do not show that the regulations will not result in net energy savings. The energy savings provided here are not equivalent to those supporting the standards. Scaling 2,695 GWh nationally using census weighting (California is approximately 12%)
65 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
53 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
54 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		

CEA		yields one year savings of 323 GWh. The adopted regulations show energy savings of 336 GWh for Tier 1 and 528 GWh for Tier 2, each of which is greater than 323 GWh. Moreover, CEA itself concedes that the pace of voluntary improvements is not sustainable. See page 12 (comment no. 65 herein) of CEA's comment letter dated November 2, 2009. CEA's consultant LECG conceded only a continuing minimal annual increase of 1% from 2011 through 2022. The record shows that the voluntary ENERGY STAR® program will not convert the entire market to the more efficient televisions being required by the efficiency standards. There would be a significant loss of energy savings in California with an ENERGY STAR®-only program.
56 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based concedes it does not reflect energy savings achieved from voluntary measures. These savings are shown by the success of utility rebate programs whose requirements had to be tightened due to high participation.	Voluntary standards do not remove inefficient products from the market, or ensure efficient models penetrate the market. Notwithstanding the effects of a utility rebate program, the record shows that television energy consumption has increased and that this will continue. The regulations are cost-effective where compliance can be achieved through existing technologies and will not result in cost increases for consumers. Efficiency is not a zero-sum proposition. Voluntary measures can be used to achieve additional savings beyond minimum standards.
58 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
46 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on	CEA objects in a footnote that in an August 2009 presentation to California legislators, the NRDC retreated from its claim that televisions account for 10% of California household energy	The Energy Commission staff did not rely exclusively on the information from the NRDC. Further, CEA did not request the PG&E information from the Energy Commission before or during the public comment period. The Energy Commission cannot respond to a request it never received.

Appliance Efficiency Standards for TV.pdf CEA	consumption, and that PG&E and its consultant did not provide the data it supplied to the Energy Commission and that was relied upon to justify the regulations.	
47 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence of current energy consumption by televisions being marketed, including in the PG&E case study, does not reflect recent improvements in efficiency or increased sales of more efficient TVs. The regulations cannot be shown to be cost-effective when based on accurate estimates of current energy consumption.	The purported deficiencies in the Pacific Gas & Electric Company's (PG&E's) CASE study, April 2, 2008, as amended July 3, 2008 ("CASE study")[8] are overstated. The CASE study was released prior to the implementation of ENERGY STAR 3.0. The CASE study could not account for a program that had not yet began. The reference to Figure 3 in the CASE study is a typo, and is meant to be Figure 4. Figure 4 does not plot plasma televisions because there were few if any that met Tier 1 at that time. CEA points to a footnote from the PG&E CASE study. However, this note recognizes future efficiency improvements are likely the result of simply dimming television screen brightness. The statement is made to demonstrate feasibility for plasma televisions to meet the standards and to say that although plasma televisions at the time did not meet the standards, that they could in the future.
49 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
72 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the Notice of Proposed Action ("NOPA") concedes that ENERGY STAR, in the absence of regulations, will achieve 35% of the claimed savings, and that this cannot be counted to demonstrate the regulations are cost-effective. The regulations cannot be shown to be cost-effective when based on accurate estimates of current energy consumption and the	The voluntary ENERGY STAR program would only obtain 35 % the calculated $8.1 billion in energy efficiency for the consumer that was calculated for the proposed efficiency standards. This would not be an acceptable alternative to these cost-effective and eminently feasible minimal standards.

[8] Identified as a Document Relied Upon.

	effect they will have on the market. Thus, the evidence establishes voluntary measures are at least as effective and less burdensome alternatives to the regulations.	
25 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		These are summaries of other objections that are responded to as each is made.
35 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
50 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

110 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
139 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
194 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailers Coalition and California Retailers Association	The Consumer Electronics Retailers Coalition and California Retailers Association object that voluntary measures are preferable to efficiency standards, and should promote consumer awareness and choice by publishing lists of inefficient televisions.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards. Notably, it does not assert or provide evidence that a voluntary program would be an equally effective and less burdensome alternative than the regulations. Further, voluntary measures are outside the scope of this proceeding in particular and outside the scope of mandatory regulations in general. In any event, the regulations will generate a list within the Energy Commission's publicly accessible appliance database which will show which televisions meet the standards, rather than which televisions do not meet the standards. This should address the commenter's concern.

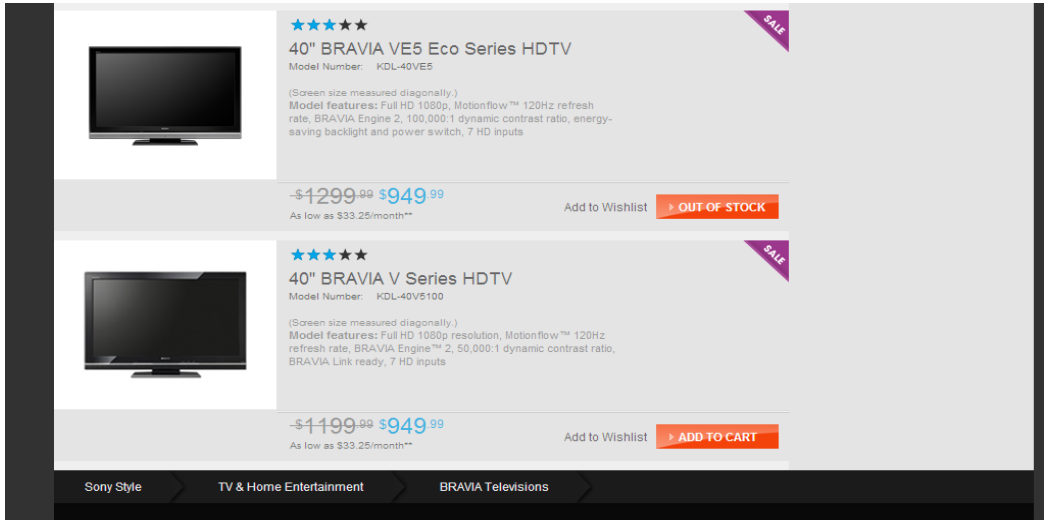
132 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that a comprehensive, voluntary program, including an auto-power down feature and forced menus to set screen brightness, would be at least as effective as and less burdensome than the regulations, and that the ENERGY STAR program results in better efficiency than the standard indicates, and greater rates of penetration than expected.	CEA's Fraunhaufer report savings of 2609 GWh/year are about 40% compared to the Energy Commission's 6515 GWh /year energy savings in the record. The data submitted by CEA does not refute the evidence in the record that ENERGY STAR will not have market penetration equivalent to that of the standards, where the ENERGY STAR requirements will become more stringent than the regulations. The regulations contain provisions addressing screen brightness, or luminance, to ensure that screens are not inadvertently left in unnecessarily bright settings. The commenters did not provide sufficient information regarding how long televisions may be left on unattended to support further investigation at this time of requirements for auto power down. The Fraunhofer report conceded its data had "significant uncertainty". (Fraunhofer, p. 20.) Further, where the regulations do not increase consumer costs, voluntary standards cannot be shown to be more cost-effective than the standards, and voluntary standards are outside the scope of the rule-making.
133 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
135 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

Comments that the regulations are not cost-effective

33 TN 53944 11-02-09 CEA Comments Regarding Draft	CEA objects the power factor standards and other aspects of the regulations are not cost-effective.	The record demonstrates that the power factor requirements are feasible, cost effective, and will save the consumer money in reduced energy costs. The technical support for these findings are based on a scientific study in the record provided by PG&E. (See Codes and Standards Enhancement (CASE) Initiative: Title 20 Standards Development; Energy

45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		Savings Estimate for Power Factor Correction in Televisions Prepared by: Paul Bendt, PhD, Ecos Consulting, April 13, 2009 available at http://www.energy.ca.gov/appliances/2008rulemaking/documents/comments/04-13-09_Energy_Savings_Estimate_for_Power_Factor_Correction_in_TVs_TN-51939.pdf, cited in the Staff Report, p. 27, n. 66.) The power factor requirements will reduce energy loss due to the excessive resistance that causes heat buildup in the house wiring, which results in wasted energy and higher electric bills to consumers. The study shows that a poor power factor is a burden to consumers, directly from excess kWh charges for home energy use, and indirectly through systems maintained by utilities to provide high-quality power despite the system defects caused by low power factors. As described in the Staff Report (see pages 26 and 27), poor (lower) power factors increase total harmonic distortion (power distribution pollution) and cause significant loss of power. Both costs are passed directly to ratepayers. CEA has not provided any feasibility studies, or energy savings analysis and cost estimates that show the PG&E study is not a reasonable estimate of energy savings and cost effectiveness. With respect to labeling and other aspects of the regulations, nothing beyond conclusory statements has been submitted to the record showing that anticipated benefits of consumer education of power consumption will be outweighed by the costs of adding that data to labels that are already required of regulated appliances. (See Section 1607, subd. (b).)
36 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the record does not establish that the regulations are cost-effective.	These are summaries of other substantive comments, each of which is responded to where it was made.

37 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
339 Wazzan Transcript Consumer Electronics Association		
73 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the record, including comments and information submitted by manufacturers, does not establish that the regulations are cost-effective, in two ways in particular: that the regulations will impose compliance costs, and that market competition will not insulate those costs from consumers. Further, some of the 297 televisions cited as part of the evidence of the feasibility of complying with the standards do not in fact meet those standards, and that there is no evidence those televisions can be made to cost-effectively meet the standards.	The commenters have not provided manufacturing cost data to show that the Energy Commission's incremental cost estimate is unfounded. The estimated incremental cost is based on making an inefficient television meet the Tier 1 and Tier 2 standard, but not to exceed those standards. The record shows that using certain plastic film, such as that from 3M, reduces the cost of the television because 40% less backlighting is needed with a resulting incremental cost being negative or zero. (See slides 51 and 52 of the October 13, 2009, staff presentation on the regulations, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF.) While some manufacturers state light emitting diode (LED), liquid crystal display (LCD), and hot cathode fluorescent light (HCFL) televisions cost more, televisions equipped with these technologies already comply with the proposed regulations. No efficiency improvement is required in these televisions to meet the regulations. Evidence in the record also shows that the incremental cost for cold cathode fluorescent lamp (CCFL) equipped televisions is negative or zero because they already meet the standards. Nor is there an incremental cost to improve Plasma television efficiency. Sony's website demonstrates that in the market, efficient televisions are competitively
74 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

75 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		priced. Two HCFL models, KDL-40V5100 and KDL-40VE5, were recently priced exactly the same:  (http://www.sonystyle.com/webapp/wcs/stores/servlet/CategoryDisplay?catalogId=10551&storeId=10151&langId=8198552921644705500&N=4294953159, March 17, 2010.) Even if the KDL-40VE5 is more expensive to manufacture, the price is not passed along to consumers. There are also many alternative approaches that do not require HCFL technology to meet the standards. In sum, where televisions with various technologies that both meet and fail to meet the standards are offered at a variety of prices, the regulations themselves will not compel consumers to pay more for televisions. Neither CEA nor any other commenter has submitted any data or evidence to the record specifically identifying which out of the 297 ENERGY STAR televisions references will not comply with the Tier 2 standards. The record, based on ENERGY STAR data, showed that these 297 sets meet the Tier 2 active mode energy levels standard. The record shows that other aspects of the standards can be readily met with software changes.

76 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA, Best Buy and others object that a variety of factors will increase the costs to consumers as a result of the regulations, and that the costs of research and development to improve energy efficiency are significantly greater than estimated by the CEC. Thus, CEA objects that televisions that meet the standards cost more than televisions that do not, and therefore the standards are not cost effective. In particular, CEA objects that the cost of LED backlighting can reach $250 per 55" TV, and the costs to increase energy efficiency using CCFL backlighting can reach $50 per 55" TV. Best Buy submitted information showing a 34% price differential for efficient televisions. Vizio submitted information that efficient televisions can cost "hundreds" more. CEA also objects that the record does not consider the costs to license energy-efficient technologies, which can be as high as $35 per 55" TV. The regulations may increase licensing and other manufacturing costs for certain technologies, negating any finding that the regulations are cost-effective.	CEA and Sony essentially contend that the incremental cost for the Tier 2 standard should be based on the most costly HCFL technology rather than the other less costly technologies, such as CCFL, LED, and OLED television technologies. Staff disagrees, where the record supports that the other identified technologies have no incremental cost where those technologies are presently in use in televisions that currently meet the Tier 2 standards at similar costs to other televisions. The record contains several examples of televisions that meet the standards, of a variety of sizes and offering a variety of features, using a variety of technologies, that meet the standards at prices comparable to televisions that do not meet the standards. Examples include: Sony 52, "Vizio 42", Sylvania 32", Envision AOC 22", and Sylvania 19" models. (See Proposed Television Regulations and Draft Negative Declaration Report for Television Efficiency Standards, Energy Efficiency Committee Hearing, Staff Presentation, October 13, 2009, slides 54-59, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF.) The Staff Report uses ENERGY STAR data to reference the manufacturer suggested retail price (MSRP) of the ENERGY STAR 4.0 compliant televisions. Page 11 shows the suggested MSRP of a variety of mid and large-screen flat panel televisions that did and did not meet the ENERGY STAR 4.0 standard (essentially the Tier 2 standard) in 2009 (four years before the Tier 2 standard will take effect) at comparable prices to each other. This demonstrates that consumers will not pay more as a result of the standards. The particular examples of other compliant models that cost more than some non-compliant models does not refute the evidence in the record that the efficiency levels required by the regulations will in and of themselves cause an increase in costs to consumers. See also Staff Report page 15, n. 11, staff presentation on the standards, October 13, 2009, slides 54-59, docket no. 53682, available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF, and comments of the Natural Resources Defense Counsel at pages 48-49 of the transcript of the October 13, 2009, hearing on these regulations before the Energy Commission, available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_TRANSCRIPT.PDF. Despite specific requests, Best Buy did not substantiate its claim that ENERGY STAR
77 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
78 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
79 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		

CEA 80 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA 83 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA 84 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		televisions cost 34% more than inefficient televisions. The Energy Commission cannot forego fulfilling its statutory obligation to set appliance efficiency standards on the basis of unsubstantiated assertions from interested stakeholders that have voluntarily entered private agreements that they now claim prevent them from sharing data supporting their claims. CEA did not quote the entirety of Vizio's statement, which included that the price differentials are expected to come down by the time the regulations take effect. Moreover, on page 63 of the transcript of the October 13, 2009, hearing, VIZIO stated it already has CCFL LCD televisions that are Tier 2 compliant and for which there is no increase in price. Although CCFL backlight technology, for example, may cost more for some manufacturers, this does not mean that this cost is required to meet the standards. It is a manufacturer's choice to use a more expensive technology than what is necessary to comply with the regulations. The record shows that the standards themselves do not increase television costs. Because currently available televisions, across the range of prices and sizes - with a variety of features - meet the standards, the regulations themselves do not require additional research and development ("R&D"). The record does not establish that current prices were not set to adequately recover past R&D and other manufacturing expenses, and this would need to be raised to recover those costs. Moreover, going forward, there is no evidence beyond speculative assertions that the regulations will increase the cost to license efficient technologies for use in televisions. Those license agreements are in place for technologies currently in use, and will not be re-negotiated simply because of the regulations. The regulations do not mandate a specific technology be used. Patent holders of certain technologies remain subject to the pressure of competition from holders of patents for other efficient technologies to keep prices competitive. The varieties of televisions across the range of prices and sizes, with a variety of features, demonstrate there is not likely to be a shortage of televisions as a result of the regulations that will cause price increases to consumers. It should also be noted that Best Buy's October 20, 2009 letter, referred to in Comment 84, was not submitted to the Energy Commission and is not in the record herein.

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85 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
85 (not numbered – trailed initial “85”) TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
271 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		

86 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
87 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
343 Greenstein Transcript Consumer Electronics Association		
344 Greenstein Transcript Consumer Electronics Association		
345 Greenstein Transcript		

Consumer Electronics Association		
346 Greenstein Transcript Consumer Electronics Association		
347 Greenstein Transcript Consumer Electronics Association		
259 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.	Sony Electronics Inc. objects that the regulations will increase costs to consumers because the technologies necessary to meet the standards have not been proven in full-scale manufacturing, and can have higher costs, depending on design.	While there are some expensive methods of improving efficiency, there are many neutral cost methods, which require television redesign and technology implementation but lead to counterbalancing parts and cost reductions. For example, new IDI technologies cost half that of current LED technologies, and advances in flat panel design are reducing manufacturing costs by more than 30%. (See Proposed Television Regulations and Draft Negative Declaration Report for Television Efficiency Standards, Energy Efficiency Committee Hearing, Staff Presentation, October 13, 2009, slides 51-53, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-10-13_hearing/2009-10-13_STAFF_PRESENTATION.PDF.) In this way, the commission has identified cost effective methods to meet the proposed standards. To allow for flexibility in manufacturing the Energy Commission has proposed performance standards as opposed to requiring specific technology implementation. It is also important to note that there are many televisions on the market today which meet the adopted on mode standards for Tier 1 and Tier 2. These include the Sony television

		models KDL-40V5100 and KDL-40VE5 identified above listed at the same price.
81 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that other measures are less burdensome and equally effective than these performance-based standards, which do not examine the costs of particular technologies.	Where the record shows that the regulations are cost-effective because they do not cause an increase in the cost of televisions to consumers, as they do here, the Energy Commission may decline to adopt other potential standards that do not achieve equivalent energy savings. Moreover, performance-based standards are generally preferred, because they afford the regulated industry the flexibility to determine the most cost-effective way to comply within any constraints of their own unique circumstances unrelated to the negotiations.
82 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the regulations will increase manufacturing costs that won't be passed along to consumers, decreasing subsequent investment in innovative technology.	The record shows that there are presently televisions on the market at competitive prices that meet the Tier 1 and Tier 2 standards. There is little or no incremental compliance cost associated with the regulations. Any research and development expenditure will not be incurred as a result of the regulations. CEA implicitly recognizes this when it concedes that manufacturers will "absorb the costs" of research into new technologies going forward, as those technologies will be pursued for other, market-driven reasons.
4 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects the regulations are not cost-effective.	This is a summary of prior comments by CEA, each of which is responded to as it is made.
270 TN 53943 11-02-09 Best Buy Supplemental	Best Buy objects that from July – September 2009, more efficient ENERGY STAR televisions cost an average of 34% more than less efficient	The Energy Commission staff has rigorously investigated price differential claims by industry. In the case of comments from Best Buy, staff requested on multiple occasions the data and methodology behind this purported 34% price premium for ENERGY STAR qualified televisions. After Best Buy failed to produce any substantiating evidence staff, in

Comments on CECs Proposed Rulemaking 1.pdf Best Buy	televisions, which demonstrates the regulations are not cost-effective. Prices are determined by materials costs, and efficient materials cost more.	the course of preparing these responses, Energy Commission staff investigated Best Buy's website and stores to try to replicate such figures. Staff was unable to locate a single non-Energy Star television in a Best Buy store, and were told that Best Buy did not sell non-ENERGY STAR televisions. Online the only televisions, which were not ENERGY STAR certified, were obscure outdoor and automobile televisions, which were actually more expensive than the ENERGY STAR televisions. In addition, ENERGY STAR premiums are linked to a voluntary standard that does not replicate the same requirements as the adopted regulations. The adopted regulations do not require televisions to be ENERGY STAR certified. Therefore, a direct comparison is inappropriate. Further, Best Buy's comments about materials costs are inconsistent with comments by other stakeholders. For example, CEA stated, at a California Senate Subcommittee hearing on October 21, 2009, that although the costs of manufacturing an efficient television may be the same as those for an inefficient television, manufacturers charge a premium for an ENERGY STAR®-labeled television to recover their research and development expenditures. This premium is charged regardless of whether there is an actual added cost to manufacture the more energy efficient television. Retail prices are set by a variety of factors, including brand premium, features, manufacturing and materials costs, competition, and credit rate. The retail price and the power consumption of televisions are uncorrelated, as shown by the availability of competitively-priced efficient televisions with features in comparable sizes as inefficient televisions. This demonstrates, in part, that the regulations will not increase the costs to consumers.
272 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		
284 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed Regulations.pdf Panasonic	Panasonic objects that the technology required to make televisions more efficient is costly and will increase television prices, and that there is no basis for the Energy Commission's conclusion that the regulations will not result in increased prices. For example, the televisions that meet the next ENERGY STAR standards, more stringent than the Tier 2 standards, will	The record does not establish that the regulations will result in increased costs to consumers. The comments to the contrary are not supported by data. Indeed, many of these comments are contradicted by commenters' own statements. For instance Panasonic, in a press release, stated "We plan to expand the lineup so that we will be able to reduce the power consumption of all (Panasonic) PDP TVs to be on par with that of LCD TVs by FY2009." (Toshihiro Sakamoto, Senior Managing Director of Panasonic and President of Panasonic AVC Networks Co., Staff Report, p. 19, n. 24.) Current ENERGY STAR® data shows that 2009 Panasonic television models far exceed Tier 2 levels. The cost of meeting the next round of ENERGY STAR standards that go beyond the Tier 2 standards is irrelevant to the cost of meeting the current standards with

	cost more.	currently-available, competitively priced televisions.
238 TN 53920 11-2-09 JVC AmeriCorps Comments.pdf JVC	JVC objects that several pieces of the evidence on which the Commission bases its regulations are not accurate, including the data Slide 26 in an Energy Commission presentation, and reference to particular JVC models.	JVC overstates the errors in this presentation and the purpose for which it was created. The purpose of slide 26 from one of the staff presentations, cited by JVC, is to demonstrate that several JVC models already meet the efficiency standards. The models identified by JVC in this objection, LT-19D200 and LT19-D200 are designations created by JVC and both models are in the ENERGY STAR® database. The "professional" model GD-42X1U was included because professional displays are not exempt from television regulations. This product is similar enough to a television for JVC to have certified it to ENERGY STAR's ® television specifications. The old listings are important because they demonstrate technical feasibility. It is relevant that televisions in the past met the standard as it clearly demonstrates technical feasibility. Moreover, professional model GD-42X1U is a current model and meets the Tier 2 on mode power requirements. The point is that six of 16, or 37.5% of current JVC models, meet the 2013 Tier 2 on mode power requirements. The models vary from 19" to 46" showing feasibility across various screen sizes well in advance of the effective date of Tier 2.
239 TN 53920 11-2-09 JVC AmeriCorps Comments.pdf JVC		
241 TN 53920 11-2-09 JVC AmeriCorps Comments.pdf JVC	JVC objects that several pieces of the evidence on which the Commission bases its regulations are not accurate or up to date, or consider the impact of the regulations on some features, like integrated iPod controls.	While some televisions do not currently meet the standards, many others do. For example, JVC's current models LT-46J300 and LT-46P300 meet the Tier 2 on mode power requirements. The LT-46P300 is equipped with a fully featured iPod docking station, while the LT-46J300 does not have an iPod docking station at all. The power consumption as reported by JVC for both models is 131.5 watts. The only difference between the models is the iPod docking station, which does not impact energy consumption. This is but one example showing the regulations will not stifle innovation. Additional examples are provided in the staff presentation. (Staff Report, pp. 32-33.) Further, even if the I-Pod dock caused the television to consume too much energy to meet the Tier 2 requirements, it would only do so because it is not designed to turn off when not in use. The purpose of the adopted regulations is to encourage and require efficient design. The record does not establish that the iPod docking feature could not be designed to be turned off when not in use. Moreover, as described herein, the test method of compliance allows additional features, like iPod connectivity, to be disabled during compliance testing. Manufacturers have three years in which to implement such a design. This is certainly feasible in a product that has been completely redesigned every two years for the past

		several years.
240 TN 53920 11-2-09 JVC AmeriCorps Comments.pdf JVC	JVC objects that several pieces of the evidence on which the Commission bases its arguments the regulations are feasible and cost-effective are incomplete, in that the evidence does not show compliance with all aspects of the regulations, such as the power factor requirements.	The Tier 2 compliance analysis was only based upon on and standby mode power requirements, which is the only difference between Tier 1 and Tier 2. Power factor correction is only required for televisions which consume 100 watts or greater. Televisions 37" or smaller are required to consume less than 100 watts under the Tier 2 Standard, and thus are not subject to power factor requirements. Not all of JVC's models are required to meet power factor requirements. As described herein, auto power down is most often met with a software change, whereas power factor often requires hardware changes. Nevertheless, the record shows both are cost-effective.
244 TN 53921 11-2-09 Plasma Display Coalitions Comments on Proposed Regulation.pdf Plasma Display Coalitions	The Plasma Display Coalition objects that the evidence on which the Energy Commission based the regulations did not consider contrary evidence of the effect of the regulations on the availability and sales of TVs.	The record herein of workshops in July and December 2008, a hearing, and the volume of the responses to public comments demonstrates the Energy Commission has not "ignored and dismissed" the comments opposing the regulations. Rather, the economic analyses provided by industry stakeholders do not refute the evidence showing the regulations are feasible and cost-effective where competitively-priced televisions currently meet the standards. For instance, the analyses assume without an evidentiary basis that the regulations will result in reduced in-state television retail sales. These comments also ignore that the resulting reduction in energy consumption from the regulations will have a massive economic benefit on the state, resulting in direct monetary benefits to consumers and improved electricity distribution and supply stability. Moreover, the comments by the Plasma Display Coalition, CEA, and others that on one hand manufacturers will voluntarily reduce actual energy consumption (rather than merely reducing potential consumption by voluntarily offering a few select efficient models), but on the other hand argue that reducing energy consumption through regulation will cause devastating economic damage, are irreconcilable in light of the record as a whole.
38 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on	CEA objects that the evidence on which the regulations are based, including the analysis by PG&E, is not reliable because it is obsolete, incomplete and	The regulations were not based solely on the CASE studies, or adopted without critical analysis. As reflected in the Documents Relied Upon in the rule-making file herein, this study was but one of many resources for the Energy Commission's staff in support of this rulemaking.

Appliance Efficiency Standards for TV.pdf CEA	biased.	Further, the Energy Commission finds the CEA's "non-peer reviewed [Fraunhofer] report submitted by a stakeholder with obvious vested interests" to be of "questionable value", in light of the record as a whole and subsequently obtained data. The Energy Commission's Efficiency Committee conducted workshops in July and December 2008 to discuss the proposed regulations and to receive alternate proposals and supporting data. Staff has continued (through October 30, 2009) to obtain the latest ENERGY STAR data to evaluate the credibility of the original baseline and has determined that the new data not only supports the baseline determination, but strengthens the Commission's finding that the proposed energy efficiency regulations are credible and feasible. (See similar data maintained during the rule-making process, available at: http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-09-25_TV_Model_List.pdf.) The methodology used in calculating energy consumption and savings for television is the same methodology used in previous appliance efficiency rule-makings by the Energy Commission. (See, e.g., recent rule-makings under dockets 08-AAER-1A and 08-AAER-1B, 2008 Appliance Rulemakings, Part A and B [metal halide luminaires, pool pumps, portable luminaires, and general service lamps]). The document is available at http://www.energy.ca.gov/appliances/2009_tvregs/documents/comments/TN 53907 11-2-09 Discussion of Cost Effectiveness Calculations_1.pdf in the docket herein was a publically vetted document specifically written to establish cost effectiveness methodology. New data as described herein has also shown that the PG&E studies used for proposing standards are accurate and credible. CEA has failed to provide sales data, technical data or studies to substantiate its criticism of the Staff Report or the CASE analysis.
44 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency	CEA objects that the evidence on which the regulations are based is not reliable because it double-counts certain data points.	The Energy Commission used information from CNET, the Market Transformation Program (MTP), Public Interest Energy Research (PIER), and the European Information and Technology Industry Association (EICTA) as the baseline. (See Staff Report page 12 and 35.) The record shows that the baseline has been supplemented with new studies and data from ENERGY STAR and CNET and that the Energy Commission did not rely exclusively

Standards for TV.pdf CEA		on the CASE study. CEA manufacturers sell almost 4 million televisions in California per year. California has approximately 35.4 million televisions in use. Although CEA's manufacturers have a large market in California, CEA has not provided any California sales data refuting the Energy Commission's assumptions and analysis supporting the regulations.
48 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based is not reliable where the CASE analysis includes a legal disclaimer.	As described above in response to Comment No. 38, PG&E's disclaimer attempting to protect it from legal claims does not detract from the reliability of the data in the CASE study. It should be noted that CEA's Fraunhofer study makes a similar disclaimer (Fraunhofer report, p. 2).
57 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based is incomplete because it fails to consider the efficiency improvements previously achieved.	To the contrary, the Energy Commission fully recognizes and appreciates the progress manufacturers, and others, have made improving television efficiency. These efforts have made the regulations, setting feasible and cost-effective minimum standards, possible.

Comments that the regulations will result in increased environmental impacts

185 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association	CEA objects that the evidence on which the regulations are based does not account for net energy savings by contemporary TVs that have integrated components that would otherwise be separately operated.	With respect to environmental impacts from product replacement, any such impacts are not causally related to the regulations. Because the regulations do not impact the efficacy of televisions, as described above, the regulations do not encourage replacement of televisions any differently in kind or at the same pace than in the absence of regulations. Nor do the regulations reduce the television market, where the market will be filled with more efficient televisions with comparable features, across a variety of sizes, at comparable

Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer	CEA also objects that the regulations may lead to environmental impacts from replacement of other electronic products at the same time as the television.	process as currently offered. To the extent this is an objection to the conclusions in the Negative Declaration prepared pursuant to the California Environmental Quality Act ("CEQA"), it is untimely. The commenter offers no evidence that incentive regimes are less dangerous or more efficient than the adopted regulations. Staff disagrees with this unsupported comment.

Comments that the evidence on which the regulations are based is insufficient

15 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based is not sufficient.	This is a summary of comments, each of which is separately responded to where it is made.
6 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based does not establish that contemporary televisions use as much energy as estimated.	Television energy consumption has steadily risen and is expected to increase in the absence of regulation, even if newer televisions may use less energy than older models of comparable sizes. As stated in the Staff Report, cathode ray tube (CRT) televisions consume less energy per square inch than LCD and Plasma televisions. (Staff Report, p. 2.) Moreover, CRT televisions are generally being replaced with 40% larger flat panel televisions that have greater energy consumption. (See Staff Report, pg. 3.) The record clearly shows that since the introduction of flat panel plasma's and LCD televisions, television energy consumption has jumped from 3-4% to approximately 10% of household energy use, and without regulations is expected to grow to 18%. (See Staff Report, pg. 3.) Further, when staff engineers evaluated ENERGY STAR® data to compare the compliant televisions, they observed wide variation in energy use across television models. Some 52" ENERGY STAR® compliant televisions use only 100 watts and would cost $26 per year to operate while others use over 300 Watts and would cost $80 per year to operate. A 52"
20 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency		

Standards for TV.pdf CEA		Insignia (Best Buy's brand) consumes 329 watts and the average cost to the consumer to operate this television is $88 per year. After the Tier 2 regulations take effect, a comparable television will not consume more than 164 watts, an approximately 50% reduction in power consumption, and the cost to the consumer will be less than $44 per year. 52-inch Plasma televisions may use from 320 to 535 watts. These televisions would cost the consumer from $88 to $133 per year to operate, and $880 to over $1330 over the expected life. See http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=TV Excel sheet Row 75.
38 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based, including an "Issue Paper" issued by the National Resources Defense Council ("NRDC"), overestimates television energy use, is unsubstantiated and biased, and thus the regulations cannot be shown to be cost-effective.	The calculated energy savings (8772 GWh) in the Staff Report is actually conservative. The true energy savings may be much higher. The energy use calculations are given in Table 4, page 11 of the Staff Report. The total demand for residential energy use is approximately 90,000 GWh's and television energy use is approximately 9.8%, rounded off to 10%. This 10% energy use and the cost-effectiveness analysis is not based on the NRDC document. Staff recognizes that NRDC's data is at least 5 years old and includes associated equipment such as set top boxes. As such, it was not exclusively relied on to estimate the 10% energy consumption calculation. However, the NRDC paper was valuable because it corroborated the increase in television energy consumption over the last five years due to the surge in sales of inefficient letter-box flat panel plasma and LCD televisions to replace conventionally sized CRT televisions.
39 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based overestimates television energy use, and thus the amount of energy potentially saved to demonstrate cost-effectiveness. National ENERGY STAR data shows that television energy consumption is much less than asserted by the Energy Commission in support of these regulations.	There is no information available on the ENERGY STAR website as to what methodology and models were used to calculate these estimates of energy use. The ENERGY STAR data represents an aggregate of all consumer electronics including televisions across the United States and does not accurately reflect television energy use in California. Despite having a large market in California, CEA and its constituent members have not provided California sales data to support its assertions. The record demonstrates that the current California stock is approximately 35.4 million televisions, with annual sales of almost four million. ENERGY STAR estimates 275 million televisions in the United States. The ENERGY STAR data does not provide what year this data was collected or the source of this data. ENERGY STAR shows total consumer electronics including television energy use of 50 GWh in the U.S. Further, California's per capita energy consumption is only about half that of the country as a whole (see e.g., Integrated Energy Policy Report of the California Energy Commission, 2005, p. 4.). National percentages of television energy consumption are not indicative of
40 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency		

Standards for TV.pdf CEA		California's percentages. Because of these and other factors, the ENERGY STAR data cited by CEA is not appropriate for calculating California's television energy consumption. As stated in the Staff Report, at pp. 11-12, California's total television energy consumption is approximately 8772 GWh/year. The regulations are cost-effective at significantly reducing this consumption.
59 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA, in a footnote, and in the body of its November 2, 2009, comment letter, asserts that the cost-effectiveness analysis of the regulations improperly compounds the expected energy savings.	The energy savings start to accumulate on the effective date, and grow as the existing stock is replaced. Table 8 from PG&E's July 3, 2008, proposal (see Codes and Standards Enhancement (CASE) Initiative For PY2008: Title 20 Standards Development Title: Analysis of Standards Options for Televisions, July 3, 2008), provides a column titled "1st yr. incremental savings from Tier 1 (GWh/yr)." This estimates the incremental energy savings from the baseline television (i.e., for the Tier 1 estimates, the baseline television is the average television energy consumption in the absence of regulations, and for the Tier 2 estimates, the baseline television consumption is equivalent to the Tier 1 standard) having to meet the Tier 1 efficiency levels. The column titled "1st yr. incremental savings from Tier 2 (GWh/yr)" estimates the additional incremental energy savings from the Tier 1 efficiency level to the Tier 2 efficiency levels. The column titled "1st yr. incremental savings from Tier 1 & 2 (GWh/yr)" estimates the total first year savings. Note that for years 2011 and 2012 there will be incremental savings for Tier 2, because it will not yet be effective. In 2012 and 2013, the estimated incremental savings are limited to achieving Tier 2 compliance, because at that time the first Tier 1 televisions sold will have reached the end of their design lives. The Energy Commission's calculated net present value (NPV), of the regulations is based on a complete California stock of Tier 2 compliant televisions in the year 2023. Each time a Tier 2-compliant television is sold the NPV of the energy savings from that television is added to the total value of the regulations. This occurs until all televisions are Tier 2 televisions and begin to be replaced with like-kind Tier 2 televisions. The Energy Commission estimates over 40,000,000 Tier 2-compliant televisions to be sold by 2023 and that the minimum energy savings from these more efficient televisions to be 6,515 GWh/year. This leads to a monetary savings of $912.1 million/year at $0.14 per kWh. The value of saving 1 kWh/year over 10 years at $0.14/kWh is in simplistic terms 10 x 0.14 = $1.40. However, because of the time value of money, a dollar earned tomorrow will be worth less than a dollar earned today. To account for this, the Energy Commission made a
60 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

		NPV calculation using a 3% discount rate which reduces the present value of saving 1 kWh/year over 10 years from $1.40 to $1.24. The resulting $1.24 value is then multiplied by the savings of 6,515 GWh (1 GWh = 1,000,000 kWh) and the result, once all televisions are Tier 2 compliant, is $8.1 billion in today's dollars. This calculation is conservative because the cost of energy in California is significantly more than $0.14 per kWh. Staff used the 2007 electric rate of $0.14 per KWh to calculate the energy savings. Utilities use tiered rates for residential customers. The Investor-Owned Utilities, which serve about 80 percent of California customers, have multi-Tier rates. Over the course of the billing period, as the consumption levels defining the Tiers are reached, each additional kWh consumed is more expensive. This is designed to provide a baseline discount for essential consumption, reward conservation and efficiency, and penalize high usage energy. PG&E's baseline Tier 2 and Tier 3 electricity rate has increased to $0.14 and $0.29 per kWh respectively as of June 1, 2010. The Tier IV electricity rate is $0.40 per kWh. Under this rate structure, the $8.1 billion would be higher and individual customers with higher consumption would save significantly more. It should be noted that this expression of the value of the regulation is not required, but has been voluntarily provided in accordance with the Department of Finance's request for an estimate of "the total statewide benefits from this regulation over its lifetime". (See Economic and Fiscal Impact Statement, Department of Finance Form Std 399, §§C [Estimated Benefits] & D, in the record herein.)
313 Johnson Transcript Consumer Electronics Association	The CEA objects that there is no basis for regulating power factor because it will not improve energy efficiency of televisions.	The Energy Commission may adopt other cost-effective requirements than efficiency standards. (Pub. Resources Code, § 25402, subd. (c)(1).) The power factor requirements are feasible, cost effective, and will save the consumer money in reduced energy costs. The technical support for these findings are based on a scientific study in the documents relied upon in the study provided by PG&E. (See Codes and Standards Enhancement (CASE) Initiative: Title 20 Standards Development Title: Energy Savings Estimate for Power Factor Correction in Televisions Prepared by: Paul Bendt, PhD, Ecos Consulting, April 13, 2009, available at http://www.energy.ca.gov/appliances/2008rulemaking/documents/comments/04-13-09_Energy_Savings_Estimate_for_Power_Factor_Correction_in_TVs_TN-51939.pdf, cited in Staff Report, p. 27, n. 66.)

		The power factor requirements will reduce energy loss due to the excessive resistance that causes heat buildup in house wiring, which results in wasted energy, higher electricity costs to consumers and unnecessary generation. Power factors below 0.9 “pollute” the power and cause significant losses. Both costs are passed directly to ratepayers. CEA has not provided any feasibility studies, energy savings analysis, or cost estimates that show the PG&E study is not a reasonable estimate of energy savings and cost effectiveness.
68 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the Energy Commission has not given proper consideration to public comments, especially those contending voluntary measures were at least as effective as and less burdensome than the regulations.	As shown here and through two workshops, the Energy Commission staff has reviewed and considered all comments and data, facts, studies, and expert opinion regarding the proposed standards. Staff conducted independent research to further evaluate unsupported comments. As explained in response to the substantive comments regarding a voluntary program, such a program would not be as effective as the regulations.
69 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

Objections that the data relied upon to develop the regulations are obsolete

16 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA (and other commenters) object on multiple grounds that the data on which the regulations are based is obsolete, fails to account for voluntary improvements in efficiency, are not cost effective, and will impose significant costs on consumers, the State, and the California economy.	At the time the regulations were developed with stakeholder involvement, staff used the most currently available data, and updated that data as new information became available. (See http://www.energy.ca.gov/appliances/2009_tvregs/documents/2009-09-25_TV_Model_List.pdf.) Since making the proposed regulations available for public comment, and their adoption, staff has verified that new information corroborated its analyses. Though CEA asserts that the energy consumption of ENERGY STAR® digital TVs have improved by more than 41% and reduced power consumption by 29.3%, this is relative to the energy consumption of similar, large flat panel televisions, not to the energy consumption of existing, usually smaller CRT televisions being replaced. CEA's assertion does not show that the regulations will not result in net energy savings. The record shows that two factors significantly contributed to increased television energy consumption between 2007 and 2009: • Downward trend in prices of large screen high-definition digital televisions. • Federal Communications Commission's mandatory analog to digital conversion. The record shows that the proposed regulations use as a baseline data from 2007 from CNET, Market Transformation Program (MTP), Public Interest Energy Research (PIER), and the European Information and Communication Technology Association (EICTA) (see Staff Report, pp. 12, 35). This data represents televisions released in 2007, many of which were still being sold in 2008 and some even into 2009. The data is sufficiently recent for purposes of a rulemaking begun in 2009. Staff recognized the value of newer data and therefore the baseline was confirmed with new studies and data from ENERGY STAR and CNET. Staff has continued to obtain the latest ENERGY STAR data to evaluate the validity of the original baseline. The new data corroborates the accuracy and credibility of the PG&E studies that were used in formulating the proposing standards. Because this new data corroborated the data already relied upon,
41 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

		Staff did not need to rely upon this new data to develop the regulations. Furthermore, the assumptions used to model energy savings here are consistent with past rule-makings. (See, for example, recent rule-makings under docket nos. 08-AAER-1A and 08-AAER-1B, 2008 Appliance Rulemaking Part A and Part B [regulating metal halide luminaires, pool pumps, portable luminaries, and general service lamps]; in the docket herein, the methodology was consistent with that used for the past two decades. See http://www.energy.ca.gov/appliances/2009_tvregs/documents/comments/TN 53907 11-2-09 Discussion of Cost Effectiveness Calculations_1.pdf.)
42 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA further objects that the data regarding energy consumption is not measured in the same way as that proposed by the regulations (i.e., according to the adopted test method), and thus cannot be used as support for the regulations.	The data sets used to develop the standards were the most recent available at the time. That data was updated as new information became available, and that new information corroborates the conclusions drawn from that data, and does not refute that television energy consumption continues to increase. The test data from CNET and ENERGY STAR® used to analyze 2009 standards was based on IEC 62087 test method. The new test data was obtained after the test procedure was adopted and made available. The new IEC 62087 test data corroborates the accuracy and credibility of the PG&E studies that were used in formulating the proposed standards.
43 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the data from a "DisplaySearch Global TV Shipment and Forecast Report" is not reliable.	In the experience of the Energy Commission staff, Display Search is a widely known and reputable professional, independent consulting group that collects television market data. Display Search ensures that the most accurate data is available to its customers.
183 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed	The Consumer Electronics Retailer Coalition and California Retailers Association object that the evidence on which the regulations are based is obsolete in that it fails to account for the energy use of converter boxes, and thus overestimates anticipated energy savings and the cost-effectiveness of	Converter box energy consumption was not considered because the Energy Commission analysis is forward looking, comparing various efficient and inefficient new models of televisions and the impact of standards on energy savings. New models are digital and do not require converter boxes. In other words, our energy saving calculations compared the value of replacing a new efficient television with a new inefficient television, not replacing an old analog cathode ray TV with a new efficient television. Moreover, the digital to analog signal convertor box is an additional device and the IEC test procedure allows any

Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer Coalition and California Retailers Association	the regulations.	additional equipment to be disconnected during testing.

Comments regarding the labeling requirement.

282 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed Regulations.pdf Panasonic	Panasonic, the Consumer Electronics Retailer Coalition and California Retailers Association object to the requirement for physical labels, with parameters on font size, on televisions, and expresses a preference for on-line posting of information.	The labeling requirements were included in the regulations to facilitate enforcement, further savings, and respond to public requests and comments seeking labels and to provide the obvious benefit of allowing consumers to compare televisions based on energy consumption. Without such information, consumers cannot compare televisions on the basis of energy consumption or even know what the magnitude of the impact on their energy bill will be. Consumers want and need an easy way to compare efficiency and operating costs when shopping for televisions in stores. The regulations do not preclude posting information on internet sites. The Energy Commission maintains an online database of detailed energy use information for televisions and all other regulated appliances. The Energy Commission will use its consumer energy center website to continue to educate the public on energy efficiency of appliances.
197 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer Coalition and California Retailers Association		

31 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	Best Buy, CEA and Sony Laboratories Inc. object that the regulations should defer labeling requirements to a federal standard, are overly prescriptive, and conflict with safety labels regarding energy usage according to Underwriters Laboratories, Inc.'s standards. Permanent labels provide little benefit where the initial purchaser is the primary beneficiary of energy-consumption information and such information is provided in other materials. CEA recommends that any on-mode power consumption disclosures be limited to: (1) manufacturers' web sites or other online resources; (2) specification sheets made available to retailers; and (3) labels on shipping cartons.	The Energy Commission has adopted labeling standards for televisions in the absence of US Federal Trade Commission ("FTC") labeling requirements. These requirements are more accurate than proposed FTC requirements because they require display of actual consumption. Proposed FTC "EnergyGuide" requirements estimate energy costs based on electricity and appliance use rates that are lower than that shown by the data in the record for California. The Commission adopted type size and placement requirements to create a standardized method of labeling. These conventions and standardized labeling methods will create consistency for consumers which will aid their ability to compare energy consumption between manufacturers, brands, and models. The requirement for a permanent label on the model ensures that the information about the model's energy performance is accurate, facilitating consumer awareness and enforcement. Retailers typically place unpackaged televisions on display with informational cards/tabs placed below the products providing their model number, price, and a limited number of features, and sometimes these labels can be mixed up. Further, the television and retail display labels are intended to inform consumers, be they individuals or businesses, of the relative efficiencies of different models at the critical time of initial purchase, when faced with the opportunity to choose more efficient models. This will achieve the greatest energy savings. Further, there is no risk of conflicting federal and state requirements. If the FTC adopts labeling standards they will pre-empt the California specific labeling requirements. (See http://www.ftc.gov/energy/contentframe_appliance_main.html for information on FTC's labeling rulemaking for televisions.) Today when consumers shop for a new television there is no information on the television regarding its energy use or operating costs, so the consumer cannot make comparisons between similar models. As an example, a customer looking at 52 inch Sony televisions that have an ENERGY STAR logo, have no way of knowing that one uses 105 watts of energy and another uses 329 watts of energy. The higher wattage-consuming television would cost the consumer $57 dollars per year to operate and $570 over the life of the television. Worse, the non-ENERGY STAR 52 inch televisions may use from 335 to over 500 watts of energy and cost the consumer from $88 to $133 per year to operate and $886 to over $1,330 over the life of the television. While "white goods" such as refrigerators and clothes washers provide similar information at the point of sale via the yellow Energy Guide labels
34 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
143 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
144 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf		

CEA		required by the FTC, no such requirement currently exists for televisions. Furthermore, testimony from the National Resources Defense Counsel at the October 21, 2009, Assembly Committee on Utilities and Commerce hearing on these regulations indicated that CEA had been lobbying against physical labels being put on televisions that would provide energy consumption information for the buying customer. Regarding potential conflicts with the UL label, these regulations do not preclude additional labeling or additional information on labels. Accordingly, they may state the different purposes and parameters of the labels to avoid confusion, cross-reference any other labels, and place them in different locations or adjacent to each other, as they determine is best, to avoid confusion.
146 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
148 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
261 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.		
266 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf		

Best Buy 275 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy 330 Belt Transcript Consumer Electronics Association		
226 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America	Sharp Laboratories of America objects that there has not been sufficient discussion with stakeholders regarding the labeling requirements, and expresses a preference for federal standards.	The labeling proposal was distributed to stakeholders in pre-rulemaking and in rulemaking environments. The Energy Commission record shows that the commenter attended workshops and pre-rulemaking meetings at the Commission. As described above, any federal requirement will pre-empt these labeling regulations, once it becomes effective.
145 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA and Sharp Laboratories of America object that the font size requirements for labels that is linked to screen characters may require impractically large physical labels, or impractically small on-screen electronic menus.	The regulations do not inherently require labels or characters of a certain size – only that they relate to the on-screen menu. Manufacturers are given maximum latitude to make their own decisions about these aspects of their products.

224 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America		
147 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA and Sharp Laboratories of America object that the requirement to include power consumption in labels and other printed documentation conflicts with current practices of printing such materials before model settings, including power consumption, are finalized.	These comments do not demonstrate an undue burden on manufacturers or provide sufficient justification to change the regulations, where manufacturers must address the same issue with an FTC label and have managed to overcome it. Further, because the effective date of July 1, 2010, has passed, and the regulations have not yet been filed with the Secretary of State, the Energy Commission has requested an effective later date than 30 days after filing with the Secretary of State, to January 1, 2011,pursuant to Government Code, section 11343.4, subd. (b). The Energy Commission further requested that the July date be changed to reflect the effective date. These changes clarify without materially altering the requirements, rights, responsibilities, conditions, or prescriptions of the regulations. (1 Cal. Code Regs., § 40.) The Energy Commission makes these changes pursuant to its November 18, 2009, Adoption Order, number 09-1118-13. These changes are reflected in the Full Text of the Proposed Final Regulations submitted herewith.
225 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America		
316 Johnson Transcript Consumer Electronics Association	CEA supports reporting of energy consumption data.	This comment is not an objection to the regulations or the process by which they were adopted.

277 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy	Best Buy requests that the Energy Commission delay implementation of the Tier 2 standard and require labeling at the point of manufacture. Best Buy, Sharp Laboratories of America, the Consumer Electronics Retailers Coalition and the California Retailers Association request that the regulations explicitly sunset the labeling requirements upon the adoption of federal labeling requirements.	The record does not justify delaying adoption of the Tier 2 standards where they will achieve significant energy savings, and all manufacturers presently offer televisions that meet the standard well in advance of its effective date. The regulations do require that manufacturers ensure the labeling requirements are met. See Section 1606, subd. (a)(4)(A)(5). The labeling requirements will be pre-empted by operation of law when a federal requirement becomes effective. No sunset provision is required.
227 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America		
192 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer		

Comments regarding the mathematical analysis

14 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis is based on obsolete data and mathematical and conceptual errors.	This is a summary of detailed, specific objections that are addressed where they are made.
17 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis is premised on data that does not account for voluntary improvements in efficiency, and thus over-estimates the energy savings that may be delivered by the regulations. Correcting this error will demonstrate the regulations are not cost-effective.	The Energy Commission's savings estimates are based upon on a baseline developed in early 2008 of plasma and LCD televisions. The savings estimates are made by comparing the energy consumption of a baseline television to a television which just barely meets the Tier 1 or Tier 2 standards. Evidence in the record does not show "natural market improvements." The record shows that some televisions reduced energy consumption as a reaction to an ENERGY STAR standard which is a government interaction with the market. As noted above, CEA's own experts conceded that that the efficiency improvements gained in 2008/2009 were not sustainable and were not likely to continue. In response to these comments, the Energy Commission conducted further analyses considering the pace of improvement in the market from 2008 to 2009 to extrapolate market conditions to 2012. The results support the adopted regulations' energy saving effects on the market.
18 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		

45 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		**42" TV Extrapolated Efficiency Standard Curves Based on 2008 to 2009 Efficiency Trends and On Mode Standards**
51 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
52 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		Based on ENERGY STAR data as of October 16, 2009, the table above extrapolates the efficiency trends of 42" televisions to the year 2012, and assumes 42" televisions are normally distributed around the mean efficiency. Each set of points on the graph represents the mean and two standard deviations to show average efficiency and the extent of variance. The actual data is skewed to the right, meaning that less efficient televisions are more common but a few very efficient sets pull the distribution towards lower power consumption. Even if current efficiency trends continue, the more stringent Tier 2 standards will achieve a significant amount of energy savings, with an efficiency approximately one standard deviation from the projected mean. Considering the skew of the data, this indicates that the Tier 2 standards will only require that the bottom 20% most inefficient televisions to improve their efficiency more than they otherwise would have without the standards. This shows the efficiency levels required by the standards are feasible and that they will reduce energy consumption in the State beyond the natural trend of the market. As discussed in response to more specific comments that the regulations are not cost-effective and are more burdensome than voluntary improvements, the regulations will save

		more energy than voluntary measures, and are cost-effective where they will not increase consumer costs because televisions that meet the standards are currently available and competitively priced.
61 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis improperly counts cumulative energy savings, which will not occur until after a complete market turnover ten years after the regulations are adopted, as occurring each year after adoption.	The comment claims that the Energy Commission assumes approximately 6,500 GWh per year for each year between 2011 and 2022. On page 12 of the Staff Report, the first year statewide energy savings are clearly detailed and are not on the same order of magnitude as 6,500 GWh. 6,500 GWh is calculated by taking the two numbers at the top of the Staff Report page 12 and adding them together (3,800 GWh savings for Tier 1 and 2,700 GWh savings for Tier 2). The Staff Report clearly states that these savings only occur after all existing televisions are replaced. It does not, however, at any point state that this event would occur at any point between 2011 and 2022. However, the Energy Commission does estimate a 10 year life for a television. Therefore 10 years after Tier 2, in 2023, all stock should be Tier 2 compliant. At this point the Energy Commission estimates the savings to be approximately 6,500 GWh for the next 10-year life of a market that is entirely Tier 2 compliant.
62 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
63 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis improperly counts cumulative energy savings, uses a 3% discount rate, and relies on obsolete data that does not account for voluntary improvements in efficiency.	These comments misinterpret the Energy Commission savings analysis. The NPV calculation of the savings from the regulation after full implementation over the life of a television is not relied upon to demonstrate the regulations are cost-effective. The application of a credit-card interest rate to calculate the NPV of the expected savings is inappropriate.
336 Wazzan Transcript		

Consumer Electronics Association		
64 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis is premised on data that does not account for "natural market trends" (i.e., voluntary) that improve efficiency.	Trends of natural market adoption of higher efficiency models have not been established. The only trends that the CEA refers to as "natural" are a direct reaction to government interference in market activity such as the ENERGY STAR program and California's public goods charge that funds efficiency rebates. As described in the Staff Report on pages 2 and 3, the natural market trend for televisions is to increase energy consumption. These factors were omitted from energy savings calculations to be conservative in estimates and due to the uncertainty associated with any given future predictions. In addition CEA on page 20 of its comments provides a bar graph indicating market importance of various television aspects. Energy consumption, lumped with other environmental issues, rated 5th in importance. CEA states "the current display technologies that consume the least energy have attracted less interest from consumers, constituting only .5 percent of today's market" and "What consumers want and deserve most from their television experience are high performance and new features, at the lowest possible price." This demonstrates that market forces are not a motivating factor for manufacturers to improve efficiency. Further, CEA's Fraunhofer report estimated ENERGY STAR growth that fell far short of meeting 100% compliance with the Tier 1 and 2 standards. On multiple grounds, CEA contradicts its own argument that energy efficiency is a strong driving force towards "natural market adoption" of efficient televisions, further demonstrating the need for minimum standards. CEA also fails to provide detail necessary to substantiate its conclusions, including the following: • What is the base line for a high efficiency model? • Which models are high efficiency? • What size range is being selected as high efficiency? • How many high efficiency models are being sold in California? • How many high efficiency models are currently in use in California? • How many low- and mid-efficiency models have been sold and are in use in California?

		• How many inefficient models are in use in California? Without such information, the Energy Commission cannot evaluate the natural market adoption trends suggested by CEA.
66 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis is premised on data from PG&E that does not account for voluntary improvements in efficiency, effectively negating any anticipated savings as a result of the Tier 1 standards.	PG&E's evaluation of the market was done by taking linear regressions of the compliant population of LCD televisions and the non-compliant population of LCD televisions. These can be seen on pages 11 and 12 of the PG&E CASE study. The CASE study assumes that savings will occur in 66% of units beyond current saturation of efficient models. The Tier 1 standard will improve efficiency beyond ENERGY STAR 3.0. As of September 16, 2009, the ENERGY STAR database contained over 50 LCD models that did not meet the Tier 1 on mode power requirements. This does not include LCD televisions which are not ENERGY STAR certified. Tier 1 will have an impact by requiring those television sets to improve their efficiency or by market substitution. In addition the adopted regulations have specific luminance requirements which may cause LCD manufacturers to improve the efficiencies of their televisions rather than simply dimming their screens. Lastly, the adopted regulations include power consumption disclosure which will influence the LCD market by encouraging competition and therefore improve efficiency in future televisions. The Commission's staff has been provided no corroborating data by CEA on which to reject the PG&E analysis.
67 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis is premised on data that does not account for voluntary improvements in efficiency and applies an improper discount rate. When these errors are corrected, the net present value of the regulations is diminished to a point that they cannot be shown to be cost-effective.	As described in response to other comments explaining the calculation of the NPV of the regulations, and the cost-effectiveness analysis, the regulations are not premised on the NPV. That figure was required by the Department of Finance. The regulations are cost-effective where the record shows that televisions meeting the standards are currently available at competitive prices. The regulations will result in immediate energy cost savings for consumers and will not increase costs to consumer.

70 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the cost-benefit analysis is premised on data that does not account for voluntary improvements in efficiency and applies an improper discount rate. When these errors are corrected, the regulations cannot be shown to be cost-effective.	The regulations are not predicated on anticipated cumulative savings with the complete turnover of all TV's to Tier 2 standards. The regulations have been shown to be cost-effective where they will immediately save consumers energy costs and will not increase costs.
71 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
217 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America	Sharp Laboratories of America objects that the clear policy goals or parameters for data analysis were not set for establishing the efficiency standards.	The Energy Commission's policy for adopting efficiency standards implements its statutory directive to adopt efficiency standards which save energy, are cost effective, and are technically feasible. Contrary to the comment, other stakeholders have argued on the record that the standards provide certainty for investment in efficient technologies. The analyses apply accepted principles of statistical analysis.
243 TN 53921 11-2-09 Plasma Display Coalitions Comments on Proposed Regulation.pdf Plasma Display Coalition	The Plasma Display Coalition objects that the regulations are not cost-effective, because the cost-benefit analysis wrongly "takes credit" for energy savings "provided" through voluntary measures. The only savings that are causally related to the regulations will be from the removal from the market of high-end televisions that	The commenters here and in other comments did not provide sufficient information to define "high-end" televisions to justify changing or foregoing adoption of the regulations. As stated herein in response to previous comments, the market data in the record shows televisions meeting the standards of all size categories, with a variety of features, are currently available in the market. Further, all manufacturers have already developed televisions meeting the Tier 2 standards; indeed, the entirety of some product lines already meet those standards. The record, and information obtained after the regulations were adopted demonstrates that the regulations will not reduce market selection.

	cannot meet the standard.	
337 Wazzan Transcript Consumer Electronics Association	CEA objects that the cost-benefit analysis improperly fails to consider voluntary improvements in efficiency that will occur during the time the regulations transform the market which "effectively eliminate[]" the benefits of the regulations.	As described in response to previous comments, the data in the record demonstrates that voluntary improvements are not expected to obtain sufficient market penetration to achieve energy savings comparable to what will be obtained by the regulations.
338 Wazzan Transcript Consumer Electronics Association	CEA objects that the cost-benefit analysis improperly fails to consider voluntary improvements in efficiency.	As described in response to previous comments, the data in the record demonstrates that the regulations will achieve significant energy savings over current consumption by televisions in the market.
206 TN 53899 10-30-09 Panasonics Preliminary Comments. Panasonic	Panasonic requests that the on-mode powers should be defined as the "home" mode power to avoid confusion with "the most energy consumptive mode available in the forced menu."	On mode power is intentionally generic as it covers televisions with forced menus, without forced menus, and without a "home" mode. Section 1604, subd. (v)(3)(B)(1) describes the collection of power in the "most consumptive mode". This is the definition of "retail on mode power" in Section 1602, subd. (v). Leaving on mode power undefined afford flexibility in design of features. Section 1606, Table X, requires reporting both the "on mode power" and "retail on mode power" which demonstrates that they are different characteristics. No further clarifications are needed.
207 TN 53899 10-30-09 Panasonics Preliminary Comments. Panasonic	Panasonic requests a change in the light measurement protocol text to match the revised ENERGY STAR protocols.	The Energy Commission harmonizes its television regulations with ENERGY STAR® testing procedures wherever feasible. The proposed luminance test method is a copy of the published ENERGY STAR® language. This language was developed after review by ENERGY STAR stakeholders. When ENERGY STAR® revises this language; the Energy Commission may consider revising its adopted test method. The Energy Commission rejects the proposed changes, as they do not harmonize with ENERGY STAR® as per the regulation's intent. Harmonizing reduces the testing costs to manufacturers as they may test once for both ENERGY STAR and Energy Commission data reporting needs.

Comments regarding the effective date

265 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy	Best Buy requests that the regulations be delayed to allow adoption of federal standards.	The Energy Commission declines to delay achieving the energy savings of these regulations where a DOE rulemaking is in its nascent state and has no clear schedule. Delaying Tier 2 unnecessarily causes a loss of energy savings to California consumers, where televisions are already available that meet the Tier 2 standards. Moreover, California's standards, if effective, may encourage adoption of similar federal standards.
193 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. Consumer Electronics Retailer	Best Buy, the Consumer Electronics Retailers Coalition and California Retailers Association request the regulations be delayed to coordinate with manufacturing cycles. The effective dates will require manufacturers to begin complying 4 – 9 months early to correspond to the start of manufacturing cycles. This will lead to increased costs to consumers from having to change product specifications in the middle of a manufacturing run. The commenters are also concerned that the regulations will preclude the future sale of products manufactured before the effective date of the regulations	The regulations were adopted in November 2009. The Tier 1 standards will not be effective until January 1, 2011. Manufacturers will have had more than a year to plan their manufacturing schedules to meet the standards. The record does not demonstrate that this date, different than any other, will result in greater costs to consumers. Notably, the commenters did not suggest a preferred date, despite asserting that many retailers begin receiving new products between May and August. The Energy Commission also doubts this concern is significant where these dates conflict with the heavy television sales period from November – January for the Christmas, New Year's Day and Super Bowl television shopping seasons. The adopted regulations only affect televisions manufactured after the effective date. Existing stock in warehouses and on store shelves manufactured before the effective dates are exempt from the standard and can continue to be sold. This regulatory scheme allows for the smooth transition from an unregulated to a regulated market. Moreover, as described herein, all manufacturers currently offer televisions, including some whole product lines, that meet the Tier 2 standards. The evidence does not suggest this concern as serious as it is represented to be.
199 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics		

Retailer Coalition and California Retailers Association		
200 TN 53838 10-21-09 Comments from Consumer Electronics Retailer Coalition and California Retailers Association Regarding Proposed Rulemaking on Television Efficiency Standards. The Consumer Electronics Retailer Coalition and California Retailers Association		
276 TN 53943 11-02-09 Best Buy Supplemental Comments on CECs Proposed Rulemaking 1.pdf Best Buy		

Comments regarding luminance and power factor requirements.

281 TN 53963 10-02-09 P. Fannon for Panasonic Comments on TV Proposed	Panasonic requests that the requirements for power factor and luminance ratio be deleted as forms of prescriptive standards.	As described further herein, the proposed regulations include luminance ratio to maintain labeling integrity and prevent manipulation of performance to pass performance test requirements, and include power factor requirements to achieve energy savings on an electricity system-wide basis.

Regulations.pdf Panasonic		
257 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf Sony Electronics Inc.	Sony Electronics, Inc., objects to the luminance requirements as unnecessary.	As recognized by the comment, power consumption is proportionate to luminance. Accordingly, the luminance requirements are adopted to ensure the efficiency requirements are met with proper design and technology, and not by artificially reducing "home" settings which would lead to circumvention by consumers increasing the setting. By requiring the television "home "setting to be 65% of the brightness of the "retail" or "vivid" mode, most consumers will be satisfied with the appearance when the television is put into service in the home. Further, these settings are consistent with that required by the voluntary ENERGY STAR® Version 4.0 and 5.0 standards.
221 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America	Sharp Laboratories of America objects that luminance should not be regulated because the test method does not measure equally the luminance of various display technologies, and does not accurately measure perceived brightness.	Sharp Laboratories of America suggests that the Energy Commission drop luminance testing and requirements from the regulations to wait for international standards to be developed. The Energy Commission has adopted testing and efficiency requirements which harmonize with voluntary ENERGY STAR standards, mandatory Australian and European Union standards, and mitigates gaming opportunities for the efficiency standards. Brightness testing and requirements are also necessary to ensure that the labeling standards are not "gamed" as described above.
220 TN 53909 10-30-09 SHARP Comments on Notice of Proposed Action.pdf Sharp Laboratories of America 258 TN 53939 11-2-09 Sony Electronics Inc Comments.pdf	Sony Electronics, Inc., CEA, and Sharp Laboratories of America object that the standard for power factor does not result in energy savings and thus is not cost effective. The requirement should be deleted.	The Energy Commission staff has determined that the power factor requirements will reduce energy loss due to the excessive resistance that causes heat buildup in the house wiring, which results in wasted energy and higher electric bill costs to consumers. The record supports that the power factor requirements for televisions consuming at least 95 W are feasible, cost effective, and will save the consumer money in reduced energy costs. Accordingly, the regulations only apply to televisions consuming more than 100 W. Further, more than 70% of the current ENERGY STAR compliant televisions meet the proposed power factor requirements, even if power factor is not an ENERGY STAR requirement. This demonstrates that the regulations will not cause a cost increase for consumers where compliant televisions are currently on the market at competitive prices. Moreover, staff estimates that once the Tier 2 regulations take effect, no more than 60% of televisions will be required to meet the power factor requirement threshold of 100 W.

Sony Electronics Inc. 342 Greenstein Transcript Consumer Electronics Association 140 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA 142 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		For a television consuming 150 W, the expected savings are 6 KWh/year. There are more than 35.4 million televisions in California. This requirement will result in significant savings. The PG&E study shows that a poor power factor is a burden to consumers, directly by causing excess kWh charges for home energy use, and indirectly through massive systems maintained by utilities to provide high-quality power in spite of the system defects caused by low power factors. A power factor below 0.9 “pollutes” the power and causes significant losses. Both costs are passed directly to ratepayers. The proposed power factor regulations can be met using power factor correction chips or capacitors which have been available for decades and are already mass manufactured. The cost to consumers is estimated to be $1 to $2. The actual cost of the components is $0.50. The cost of the power factor correction is less than the savings of the correction. The technical support for these findings are based on a scientific study in the record provided by PG&E. (See Codes and Standards Enhancement (CASE) Initiative: Title 20 Standards Development Title: Energy Savings Estimate for Power Factor Correction in Televisions Prepared by: Paul Bendt, PhD, Ecos Consulting, April 13, 2009, p. 6, available at http://www.energy.ca.gov/appliances/2008rulemaking/documents/comments/04-13-09_Energy_Savings_Estimate_for_Power_Factor_Correction_in_TVs_TN-51939.pdf, cited in the Staff Report, p. 27, n. 6.)

Submissions to the public comment file that do not constitute objections to the proposed regulations or the process by which they were adopted, and which do not need to be responded to

3 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA objects that the evidence on which the regulations are based is flawed on multiple grounds: erroneous assumptions, obsolete data, and mathematical and conceptual errors.	This is a summary of other comments that are responded to where they are made.
205 TN 53899 10-30-09 Panasonics Preliminary Comments. Panasonic	Panasonic requests a variety of changes to the regulations.	This comment is a summary of other comments that are responded to as each is made.
334 Belt Transcript Consumer Electronics Association	This was part of a discussion with the Commissioners at the adoption hearing seeking clarification from the commenter.	This is not an objection directed at the regulations that must be responded to distinctly.
351 Sharp Laboratories of America Transcript Panasonic	These comments are directed at other comments comparing television and refrigerator energy consumption as an illustrative point.	These comments are not directed at the regulations or the process by which they were adopted. The regulations are not based on a comparison of television to refrigerator energy use.

352 Sharp Laboratories of America Transcript Panasonic		
353 Sharp Laboratories of America Transcript Panasonic		
156 TN 53702 08-20-09 CH2MHILL Report RE the Imagine Design Technology Manufacturing Comparison Consulting Project. Imagine Design	This document reflects technical information about televisions.	This document is not a distinct comment directed at the regulations.
174 TN 53745 10-16-09 P. Wazzan Comments Related to Mathematical Error at the Public Hearing. P. Wazzan	This is an email communication between staff and a representative of CEA coordinating a technical discussion.	This document is not a public comment directed at the regulations.
97 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency	This comment asserts that consumers purchase televisions based on a variety of factors. Energy consumption is one element affecting consumers' purchasing decisions. But a recent CEA research poll indicates it is fifth on	This comment is not directed at the proposed regulations or the process by which the regulations were adopted. The findings in these documents demonstrate that there will be no adverse effect on the quantity of televisions being sold or the quality of television viewing.

Standards for TV.pdf CEA	consumers' list beneath price, features, warranty terms, and size.	
89 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	Several oral and written comments describe the central role of televisions in contemporary society, and the importance consumers place on television performance. As such, the industry focuses its efforts on improving those aspects of television performance.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted.
90 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
95 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
96 TN 53944 11-02-09 CEA Comments Regarding Draft		

45-Day Language on Appliance Efficiency Standards for TV.pdf CEA		
358 Kline_Transcript JVC	JVC contends that voluntary standards will be more effective than the regulations at reducing greenhouse gas emissions associated with electricity generation.	This comment is not directed at the proposed regulations or the process by which the regulations were adopted.
112 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	CEA asserts that the regulations are not sound policy because of the long-term impacts on businesses other than television and entertainment.	This comment is not directed at the regulations or the process by which the regulations were adopted.
121 TN 53944 11-02-09 CEA Comments Regarding Draft 45-Day Language on Appliance Efficiency Standards for TV.pdf CEA	This comment is directed at a comment in the Staff Report made to illustrate the issue being addressed by the regulations	This comment is not directed at the regulations or the process by which the regulations were adopted. It is directed at a comment in the Staff Report made to illustrate the issue being addressed by the regulations.
154 TN 53638 10-09-09 Broader Input from the LCD TV Association Enviornmental	The LCD TV Association states the proposed regulations are feasible and would result in little incremental cost. In addition, it expresses concern over the regulation's impact on new features such as internet connectivity,	This comment does not reflect an objection to the regulations or the process by which they were adopted.

Subcommittee on Energy Efficiency in TVs. LCD TV Association	teleconference ability, 3D TV, and gesture recognition.	
354 Gusick Transcript TiVo	TiVo objects that consumers should be free to make their own choices about the energy consumption of consumer electronics.	These comments are not directed at the proposed regulations or the process by which the regulations were adopted. It is directed at the policy decision reflected in the statute to regulate through efficiency standards and expresses concern over regulation of other consumer electronics than TVs. Further, the regulations will ensure that efficiency is a design consideration.
355 Gusick Transcript TiVo		
355 Gusick Transcript TiVo		
355 Gusick Transcript TiVo		
355 Gusick Transcript TiVo		
234 TN 53914 11-2-09 History of Energy Commission Staff and Consumer Electronic Associates Contacts	Document submitted to docket in this matter reflecting discussions between Energy Commission Staff and the Consumer Electronic Association (CEA)	This document is not a comment. It reflects interactions between the Energy Commission and CEA.

regarding Proposed Television Efficiency Standards.pdf CEA		