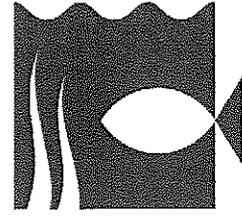


**Connecticut Fund
for the Environment**



Save the Sound®
A program of
Connecticut Fund for the Environment

**Energy & Technology Committee
Public Hearing
February 23, 2010**

Submitted by: Charles J. Rothenberger, Staff Attorney

In Support of:

H.B. No. 5217, AN ACT CONCERNING ENERGY EFFICIENT PRODUCTS

Connecticut Fund for the Environment ("CFE") is a non-profit environmental organization with over 6,500 members statewide. The mission of CFE is to protect and improve the land, air and water of Connecticut and Long Island Sound. For more than twenty-five years, CFE has used legal and scientific expertise to bring people together to achieve results that benefit our environment for current and future generations.

Representative Nardello, Senator Fonfara and Members of the Committee, Connecticut Fund for the Environment is pleased to testify in favor of HB 5217, An Act Concerning Energy Efficient Products

As residential electricity usage, costs and greenhouse gas emissions continue to rise, it is increasingly important that we take advantage of every opportunity to use energy more wisely. Appliance standards are an important part of the energy efficiency solution. While Connecticut has been recognized as a national leader in promoting energy conservation, in order to meet the energy efficiency and greenhouse gas reduction goals that it has set for itself, the state must continue to identify and adopt efficiency measures in a timely and efficient manner.

This legislation does two things. First, it provides a clear timeframe for OPM to identify and adopt new and improved efficiency standards for consumer goods. Despite a clear legislative mandate to promote energy conservation in the state by adopting efficiency standards for new products on an ongoing basis, OPM has thus far only acted in response to the express

identification of new standards by the General Assembly. This legislation clarifies and reinforces existing law.

Second, this legislation directs OPM to adopt regulations establishing minimum energy efficiency standards for consumer electronic products such as compact audio products, DVD players and televisions. The standards would establish maximum power usage levels for compact audio products, DVD players and recorders and televisions when they are in “stand-by passive mode.” This is the state when an appliance is nominally turned off, but is still drawing power so that it can be turned on remotely (commonly referred to as “phantom” or “vampire” power). The standards also establish maximum power usage levels for televisions when they are “on mode”, or actively in operation.

Improving appliance efficiency has great potential for cutting electricity demand, air pollution and greenhouse gas emissions. Nationwide, homes spend about a third of their energy use on appliances, computers, and electronics. Televisions alone now account for about 10 percent of household electricity use. Entertainment devices are among the biggest culprits when it comes to standby power consumption: 40 percent of all electricity used to power consumer electronics is used when the products have been turned off and are in standby mode. According to the International Energy Agency, roughly \$4 billion annually across the United States is spent on electricity lost to “phantom power.”

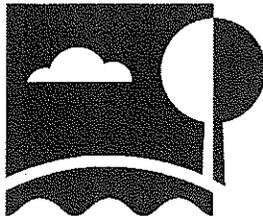
Efficiency standards for the seventeen products Connecticut already regulates are cutting the state's carbon emissions by 158,000 metric tons. Adopting these efficiency standards for home electronics will reduce energy consumption in Connecticut by more than 214 gigawatts by 2020 (enough to power more than 20,000 homes), reduce greenhouse gas emissions by an additional 110,000 metric tons (equivalent to removing more than 23,000 vehicles from the road), and reduce other air pollutants by over 650 tons.

And reducing energy use also cuts bills for consumers. These standards will result in total annual savings to Connecticut residents of more than \$33 million in 2020. By 2030, those annual savings will have grown to more than \$52 million. In a state with the second highest electricity rates in the nation, every opportunity to improve energy efficiency and reduce overall energy demand should be taken.

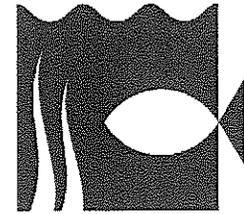
Efficiency standards for consumer audio and video products have already been adopted, in whole or in part, by California, New York and Oregon, and they are pending in Massachusetts. Five states (Maryland, Massachusetts, New York, Washington and Wisconsin) currently have legislation pending to follow California's lead in adopting television efficiency standards. Recognizing the huge cost-effective energy saving potential, the television standards in California were supported by the state's electric utilities as well as *Vizio*, the leading seller of flat-panel televisions in North America and several manufacturers of television components (their comments are attached).

This bill is a win-win for Connecticut consumers and the environment.

CFE, therefore, urges approval of HB 5217, An Act Concerning Energy Efficient Products.



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ENERGY EFFICIENT PRODUCTS FAQ

Appliance and equipment efficiency standards reduce energy use, save consumers and businesses money, and cut power plant pollution that harms public health and the environment.

Objective: To provide for regular ongoing identification and adoption of energy efficiency standards for new products. Connecticut will work with the Multi-State Appliance Standards Collaborative to continue to identify additional opportunities for efficiency standards for new products. Such standards will be adopted absent an affirmative showing that they are not appropriate for Connecticut. In the short-term, Connecticut's appliance standards will be updated to incorporate recent efficiency standards for compact audio products and televisions already adopted by several of our sister states.

Background: States can adopt energy efficiency standards for any products that are not covered by federal efficiency standards.

Connecticut first adopted energy efficiency appliance standards for eight products in 2004 (P.A. 04-85). Those standards are anticipated to reduce the state's greenhouse gas emissions by more than 74,000 metric tons. In 2007, Connecticut adopted standards for nine additional classes of products (P.A. 07-242), reducing the state's carbon emissions by an additional 84,000 metric tons.

Conn. General Statutes § 16a-48 directs OPM to adopt regulations to designate efficiency standards for additional products not enumerated in the law upon a determination that such efficiency standards "(A) would serve to promote energy conservation in the state, (B) would be cost-effective for consumers who purchase and use such new products, and (C) that multiple products are available which meet the standards, provided that no such standards shall become effective within one year following their adoption."

What does this bill do?

It updates Connecticut's list of energy efficient appliances to reflect recent standards for televisions and electronic products.. It also establishes a clear and definite timeline for OPM to discharge its responsibilities to adopt appropriate appliance standards on an ongoing basis. It directs OPM to work with the Multi-State Appliance Standards Collaborative to identify additional appliance efficiency standards. Once standards have been identified, OPM must determine whether the standard meets the criteria set out in current law within six months.

Why is this legislative fix necessary?

Despite a clear legislative mandate to promote energy conservation in the state by adopting efficiency standards for new products on an ongoing basis, OPM has thus far only acted in response to the express identification of new standards by the General Assembly. Requiring legislative action each time the state wishes to adopt efficiency standards is inefficient and contrary to the clear legislative intent of Conn. General Statutes § 16a-48.

Are there currently efficiency standards that have been adopted in other states but not in Connecticut?

Yes. California, New York, Massachusetts and Oregon have all adopted standards for several products that are unregulated either federally or in Connecticut. These products are within the rapidly growing class of commercial electronic products, such as DVD players, compact audio systems and televisions. Standards are pending in several other states.

Are these standards achievable? Can manufacturers meet them?

Yes. The efficiency standards for many of these electronic products are equivalent to the current Energy Star rating. The market penetration for Energy Star certified models covers from one-third to one-half of such devices. In the case of televisions, more than 1,000 models on the market already meet the standard.

Will these standards result in significant energy savings and emissions reductions?

Yes. Adopting efficiency standards for compact audio products will reduce energy consumption in Connecticut by more than 25 GW by 2020 (enough to power nearly 3,000 homes), reduce greenhouse gas emissions by approximately 6,000 metric tons (equivalent to removing 1,150 vehicles from the road), and reduce other air pollutants by more than 50 tons. Adopting efficiency standards for televisions will reduce energy consumption in Connecticut by 189 GW by 2020 (enough to power more than 20,000 homes), reduce greenhouse gas emissions by more than 105,000 metric tons (equivalent to removing more than 20,000 vehicles from the road), and reduce other air pollutants by more than 600 tons

Are these standards cost-effective?

Yes. Efficiency measures to reduce standby power are relatively simple and inexpensive. The estimated incremental cost of reducing phantom power loads is about \$1 – an amount earned back in lowered energy bills in three to twelve months depending upon the product. The efficiency of televisions can be improved with no incremental cost increase.

Will adopting additional standards unduly burden OPM?

No. There is a currently existing framework which significantly reduces the administrative burden on OPM. Connecticut is currently a member of the Multi-State Appliance Standards Collaborative. The Multi-State Appliance Standards Collaborative has developed a product database for several products with common standards across states. Many of the standards are adopted directly from the California State Appliance Energy Efficiency Standards, Title 20 (as are many of Connecticut's current appliance efficiency standards). Connecticut can simply adopt California's standard for these products by reference, as it has already done with other products.

Furthermore, manufacturers can comply with Connecticut's standard by certifying their products to the California Energy Commission, relieving Connecticut of the burden of independently verifying and certifying products.

2007 Energy Star Market Penetration

Compact audio products	36%
DVD Players and recorders	36%
Televisions	53%

Energy Savings and Emissions Reductions¹

Compact Audio Products:

2020 energy savings: 21.5 GWh

2020 emissions reductions:

CO2: 4,700 metric tons

NOx: 20 metric tons

SO2: 26 metric tons

DVD Players and Recorders:

2020 energy savings: 3.1 GWh

2020 emissions reductions:

CO2: 999.3 metric tons

NOx: 2.9 metric tons

SO2: 3.8 metric tons

Televisions:

2020 energy savings: 189 GWh

2020 emissions reductions:

CO2: 105,500 metric tons

NOx: 110.3 metric tons

SO2: 508.4 metric tons

¹ Estimates of Energy savings and emissions reductions come from the Appliance Standards Awareness Project and the American Council for an Energy Efficient Economy



39 Tesla
Irvine, CA 92618

DOCKET

07-AAER-3

DATE DEC 15 2008

RECD. DEC 15 2008

December 15, 2008:

California Energy Commission

Dear Sir or Madam:

I am writing to you on behalf of VIZIO, Inc., one of the three leading brands of Flat Panel HDTV sold in the USA who offer products using both LCD and Plasma technologies. We have sold around 10% of the total volume in USA for this year and we have a company goal to be a leader in the reduction of the environmental impact of our products.

We have reviewed Title 20 efficiency levels proposed by the CEC for TVs, support the standard and we are in a position to comply with proposed effective dates but would also support earlier implementations.

We have several LCD models in the market today that meet the Tier 2 standard, some four years before the proposed effective date of the standard. These models are using the latest technology and features and scan a range of screen sizes. For our Plasma TVs, although it is difficult for them to meet the standard today, there are significant efficiency achievements on the near horizon that could enable them to meet the Tier 2 requirements in the next couple of years.

The incremental costs involved in achieving the greater energy efficiency are tempered by the unrelenting innovation in technology. We have just introduced a new 32in class LCD TV that uses significantly less power by a combination of reducing the number of CCFL Backlights and adding improved light filtering to maintain the same light output. This results in a net cost increase of a few tens of dollars.

We are committed to improving energy efficiency and if you require further information or help from us please contact me and I will do everything I can to help.

Sincerely,

Mr. Kenneth R. Lowe, P. Eng., C. Eng., MIET
Vice President and Co-Founder
(949) 428-2511

ken.lowe@vizio.com



Pacific Gas and Electric Company®



SOUTHERN CALIFORNIA
EDISON®
An EDISON INTERNATIONAL Company



A Semptra Energy utility™



SMUD
SACRAMENTO MUNICIPAL UTILITY DISTRICT
The Power To Do More.™



Southern California Gas Company

A Semptra Energy utility™

October 13, 2009

Dear Commissioners:

On behalf of the undersigned California utilities, we are writing to express our strong support for the California Energy Commission's proposed television efficiency standards (Docket Number 09-AAER-1C). Together, we provide energy services to over 33.5 million Californians.

We agree with the Commission that televisions represent a prominent and growing source of end-use energy consumption. Addressing this growth through a combination of energy performance standards and utility incentive programs will be necessary for California to meet statewide energy efficiency and greenhouse gas reduction goals, such as those articulated in AB 32 (Núñez, Chapter 488, Statutes of 2006) and the CPUC's recent 2010-2012 energy efficiency portfolio approval.

The proposed TV standards will generate an estimated 6,515 GWh in energy savings annually after all existing stock is replaced. For perspective, this is equivalent to roughly 2% of California's total system-wide electricity consumption in 2008. By focusing on demand-side efficiency, the standard will eliminate a power plant equivalent load from the electric grid (roughly 500MW). The overall energy cost savings for our customers is expected to be approximately \$8.1 billion.

An unprecedented body of evidence has been presented before the Commission showing that the TV standards are feasible, cost-effective, and critical for meeting statewide goals. There are currently over 1000 TVs that meet the Tier 1 power requirements and nearly 300 TVs that meet the Tier 2 power requirements (15 and 39 months before the respective effective dates). Ample evidence has been presented before the Commission showing that TV manufacturers are offering (or plan to offer before the effective dates) these energy-efficient TVs without sacrificing product performance.

The Commission should continue its decades-long track record of promoting energy efficiency through appliance and building standards—such as has been done previously with refrigerators, air conditioners, external power supplies, and many other appliances. In supporting this proposal, we believe that California will be doing what is best for the State, the environment and the consumer.

Sincerely,



Duane F. Larson
Director, Customer Energy Efficiency
Pacific Gas and Electric Company



Lance DeLaura
Strategic Planning/National Codes and Standards Manager
San Diego Gas and Electric Company
Southern California Gas Company



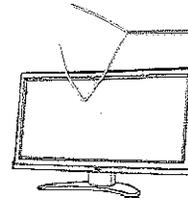
Gregg D. Ander, FAIA
Chief Architect
Southern California Edison



John DiStasio
General Manager & Chief Executive Officer
Sacramento Municipal Utility District



James H. Pope
General Manager
Northern California Power Agency



January 19, 2009

Ms. Jackalyne Pfannenstiel
Chairman and Presiding Member, Efficiency Committee

Mr. Arthur Rosenfeld
Commissioner and Associate Member, Efficiency Committee

California Energy Commission
Buildings and Appliances Office
1516 Ninth Street, MS-25
Sacramento, CA 95814-5512

DOCKET	
07-AAER-3	
DATE	JAN 19 2009
RECD.	JAN 20 2009

SUBJECT: THE LCD TV ASSOCIATION SUPPORTS THE TIER 1 AND TIER 2 TELEVISION ENERGY STANDARDS PROPOSED BY THE CALIFORNIA ENERGY COMMISSION;

**RE: 2008 RULEMAKING ON APPLIANCE EFFICIENCY REGULATIONS;
DOCKET NO. 07-AAER-3-C; TELEVISIONS**

Dear Ms. Pfannenstiel and Mr. Rosenfeld:

The LCD TV Association, a global, not-for-profit, marketing trade association formed to help the entire LCD supply chain, retail channel and consumers, endorses the two-tiered television energy standards contained within the December 2008 CEC Staff Draft Report. We believe California is taking a necessary and important step by leading the nation and world in promoting the most energy efficient televisions.

Given today's significant energy and climate challenges, we are supportive of the California strategy to increase energy efficiency in TVs and want to work with the whole supply chain to help achieve that goal. Fortunately, great TV efficiency advancements have been made in recent years without sacrificing consumer choice or TV functionality. This innovation is occurring for both LCD and plasma flat-panel technologies, as was evidenced at the recent Consumer Electronics Show in Las Vegas (January 8-11, 2009) where virtually all the major TV manufacturers were prominently showcasing energy efficient TVs. Many of these manufactures showed side-by-side comparisons of their new TVs compared with previous years' models and the latest versions show up to a 50 percent reduction in power consumption.

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 and emerging technologies will allow TVs to significantly exceed Tier 2 levels over time. Given the typical price structuring within the industry, the average Californian should not see a cost premium for compliant TVs compared to today's non-compliant TVs. They will however benefit from dozens to hundreds of dollars in energy cost savings over their TV's lifetime, thus making the proposed standard extremely cost-effective for the state of California.

The LCD TV Association's GreenTV Program is already working with major TV vendors to implement and promote new features, like an ambient light sensors, which will automatically lower the set brightness in a dark room by decreasing power to the backlight—thus saving energy and actually reducing potential eyestrain as well. This readily available technology can reduce power consumption by at least 30% (and up to 60% at times and in some implementations). Manufacturers can incorporate other technologies to further increase efficiency levels beyond Tier 2 levels, including but not limited to more efficient and less

lighting elements, RGBW vs RGB pixel structures, polarization recycling & brightness enhancement films, regional dimming, and more efficient electronics and power supplies.

We believe that many of the concerns expressed by independent retailers of specialty and "high-end" TV sets at the December 15, 2008 CEC TV workshop can be mitigated. Particularly, there were claims made that because a certain percentage of today's TVs don't meet the proposed standard, then these retailers would lose that same percentage of sales in the future after the standard becomes effective. This is clearly at odds with industry practices of improvements and TV product cycles. Put simply, with or without energy standards, retailers won't be selling today's models in the future. Manufacturers will continue to offer new models and these latest and greatest models will incorporate energy efficiency technologies and other "Green" features since consumers want them, as well as to ensure compliance with various new global standards including those being proposed by California.

In addition to complying with California energy standards, manufacturers will be developing TVs that meet or exceed Tier 2 levels for a variety of reasons, including but not limited to:

- Manufacturers may want to offer TVs that are eligible for utility incentives (e.g., the PG&E and SMUD incentive program launched in late 2008, which will likely be adopted in other parts of the country);
- Manufacturers want to make TVs that will meet or exceed the next revised Energy Star TV specification;
- Manufacturers want to ensure that their TVs meet various international standards and labeling requirements being developed in Europe, Australia, China, and Japan;
- Manufacturers want to ensure that their TVs meet standards being introduced in other states (i.e., as mentioned by the Appliance Standards Awareness Project at the December 15, 2008 workshop)
- Manufacturers want to provide TVs that can be sold at retailers with commitments for selling the most efficient TVs (e.g., the Wal-Mart pledge to sell TVs that are at least 30% more efficient than today's TVs); and
- Manufacturers want to uphold their corporate commitments towards energy efficiency and environmental goals.

Given these factors and the fact that many TVs today can meet the proposed standards, we want to repeat our support of the December 2008 CEC Staff Draft report. We also encourage the Commission to finalize the TV rulemaking and publish standards as early as possible in 2009.

Please do not hesitate to follow up with any questions.

Sincerely,

Bruce Berkoff
Chairman, LCD TV Association
Bruce@LCDTVAssociation.Org & Bruce@Berkoff.com
1-215-666-2633

James L. Bauman
Vice President and
General Manager

3M Optical Systems Division

3M Center, Building 0235-01-E-54
St. Paul, MN 55144-1000
(651) 733-4058
(651) 733-9150 Fax



January 19, 2009

Art Rosenfeld, Efficiency Committee Presiding Member
Jackalyne Pfannenstiel, Efficiency Committee Associate Member
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

DOCKET

07-AAER-3

DATE JAN 19 2009

RECD. JAN 20 2009

Re: Docket No. 07-AAER-3C, 2008 Rulemaking Proceeding on Appliance Efficiency Regulations

Dear Commissioners Pfannenstiel and Rosenfeld:

Pursuant to the Notice of Committee Workshop Re: 2008 Rulemaking Proceedings on Appliance Efficiency Regulations (Docket No. 07-AAER-3), we are pleased to submit these comments in support of the draft appliance efficiency standards for televisions in the active mode as possible amendments to the Appliance Efficiency Regulations of the California Energy Commission.

3M is an international, science-based company with worldwide sales in 2007 of \$24.5 billion. In 2005, 2006, 2007 and 2008, 3M was recognized by the U.S. Environmental Protection Agency and U. S. Department of Energy, winning the Sustained Excellence Award for Energy Management in recognition of continuous improvement in energy management. 3M was also selected as the sector leader among diversified industrial companies and was honored with a "gold class" distinction in the 2007-2008 Dow Jones Sustainability Index.

3M manufactures over 60 000 different products in diverse markets from healthcare and highway safety to energy-saving Vikuiti™ optical films for LCD devices, including televisions, monitors, notebooks and handheld devices. In 2008, 3M received special recognition from Energy Star for "Excellence in promoting superior energy performance in product design" with our Vikuiti™ optical film.

When 3M Vikuiti optical film is integrated into the backlight of flat panel LCD televisions, 3M film alone can reduce their power consumption by up to 37%. This reduction in power allows manufacturers to use fewer bulbs and inverters, as well as to use smaller power supply units. Using 3M optical film in combination with other energy efficient technologies, such as energy efficient lamps, can result in even greater power reduction.

A key point is that our technology improves the energy efficiency of all LCD TVs – independent of features. To address a concern raised during the December 15th CEC Public Workshop, 3M energy efficiency benefits work equally well with high end TVs.

Commissioners Pfannenstiel and Rosenfeld
Page 2
January 19, 2009

Our estimates indicate that, for many set makers, there are minimal incremental costs because they can recover costs throughout the supply chain through removing components, smaller power supply units, etc. For those set makers that are unable to realize these additional savings, we estimate their incremental costs would be less than \$20.

From a consumer perspective, an average 42" set would save hundreds of dollars over the life of the TV based on reduced operating costs.

We support the Staff Draft Report, released in December 2008, which proposes that the Commission adopt television standards that include two tiers of efficiency standards for active mode. However, given the rate of technological change since the Energy Star 3.0 program became effective, the high rate of compliance to Energy Star 3.0, and the fact that 107 sets currently qualify for Tier 2 based on Energy Star Dec 8, 2008 data, we encourage the Commission to forego the Tier 1 standard and to make the Tier 2 standard effective January 1, 2011.

In support of the PG&E and NRDC response, we ask the CEC to consider China's approach to the TV on-mode energy efficiency which includes luminance in the energy efficiency metric. We look forward to talking to you and other stakeholders on this key topic.

Thank you for the opportunity to submit these comments.

Sincerely,



James L. Bauman