NRDC
THE EARTH'S BEST DEFENSE

NATURAL RESOURCES DEFENSE COUNCIL

GA No. 5217 – FAVORABLE

Testimony of Meghan Gabriel, Natural Resources Defense Council
To the Connecticut General Assembly Committee on Energy and Technology
Regarding General Assembly Bill No. 5217

February 23, 2010

On behalf of the Natural Resources Defense Council and its 23,000 Connecticut members and on-line activists and its 1.3 million national members and activists, I write to express our strong support for General Assembly Bill No. 5217, which establishes minimum energy efficiency requirements for new televisions sold in Connecticut. As a result of these standards, beginning in 2013, new TVs sold in Connecticut will use up to 50% less power than 2008 models and, by 2020, Connecticut citizens will save 30 million dollars annually in the form of lower electric bills. The standards will also result in significant reductions in air pollution. According to the Appliance Standards Project and the American Council for an Energy Efficient Economy, the television efficiency standards will achieve reductions of 106,000 metric tons of carbon dioxide emissions, 508 metric tons of sulfur dioxide and 110 metric tons of nitrous oxide, by 2020, improving air quality for Connecticut residents. If one takes into account the effect of additional efficiency standards for related home entertainment products, compact audio products, DVD players and recorders, the reductions are even more staggering. Energy efficiency standards encompassing related home entertainment products will result in additional reductions of 5,700 metric tons of carbon dioxide emissions, 29.8 metric tons of sulfur dioxide and 22.9 metric tons of nitrous oxide, by 2020. These standards replicate the recently adopted California efficiency standards for TVs and will help prevent inefficient models from being dumped and sold in the Connecticut market.

www.nrdc.org

111 Sutter Street, 20th Floor
San Francisco, CA 94104
TEL 415 875-6100
FAX 415 875-6161

NEW YORK · WASHINGTON, DC · LOS ANGELES · BEIJING · CHICAGO

In sum, the adoption of GA No. 5217 will have many benefits for the citizens of Connecticut: it will reduce electric bills for Connecticut residents, reduce electricity demand and the need to build new power plants, and avoid the emissions of air pollutants from power plants, including those pollutants that contribute to global warming. At the same time, GA No. 5217 will ensure that Connecticut residents can enjoy a full range of sizes and types of TVs and related home entertainment devices.

Importance of Establishing Minimum Efficiency Standards for TVs

In 2005, NRDC conducted the first ever field study of energy use of TVs. This study revealed that televisions represent one of the largest unregulated energy uses in the home. Televisions can consume around 5% of household electricity use and, when combined with associated uses, can easily exceed 10% of a household electricity use. In fact, some of the largest, least efficient models on the market consume more energy each year than a new refrigerator does. Consumer electronics are also one of the fastest growing sources of electricity use in the home. TV energy use has grown significantly due to the growth of flat panel TVs which typically use more energy than the TV they replace. In addition, TVs are on more hours per day than in the past due to DVD movie viewing, video game play and the availability of more than a hundred channels via pay TV.

NRDC recognized that televisions could be designed to use far less electricity while still delivering the same quality for consumers. In light of the tremendous potential savings, NRDC's senior scientist Noah Horowitz worked with the California Energy Efficiency Commission (CEC) to develop efficiency standards. After an extensive two-year long rulemaking, the CEC adopted energy efficiency standards for new TVs sold in California on December 2009. As of January 1, 2013, new TVs sold in California will use up to 50% less power than 2008 models. Upon passage of GA No. 5217, Connecticut citizens will be ensured of equivalent savings.

Key aspects of the standard

The standards have two main components. First, the standards requiring minimum efficiencies when the TV is operating are scaled to the screen size. In other words, a TV with a larger screen is allowed to use more energy when operating than a smaller TV. Second, the standards establish a standby power limit of 1W. This ensures that when the TV's are turned off, they don't consume more than a minimum amount of electricity.

The standards are technology neutral and performance based. The standards establish requirements for the amount of energy used but say nothing about the technologies that manufacturers can use to achieve that standard. Thus, manufacturers have complete flexibility in how they design their TVs. Consumers will therefore continue to be able to choose from all TV types – LCD, plasma, rear projection, as well as TV technologies not yet even on the market.

The standards are readily achievable using currently available technology. Today more than 300 available models meet the 2013 efficiency requirements. This represents roughly 25% of the market. These are made by all the leading manufacturers ranging from Samsung, Sony, Vizio and Panasonic and are available in a wide range of sizes. At the January 2010 Consumer Electronics Show, many manufacturers introduced new LCD and plasma models that will also meet the proposed Connecticut requirements.

The standard does NOT ban big screen TVs. As stated above, the on-mode power requirements allow bigger TVs to use more power than smaller ones. Contrary to false stories that have appeared in the media, consumers will continue to be able to buy any sized TV they want. In fact the California TV standards do NOT regulate the super large TVs, those >58 inches. (California will likely address these in a follow-on rulemaking.) As drafted, Connecticut's regulations would also exempt TVs >58 inches.

Please find additional detailed information about the standards, the California process and responses to claims made by the Consumer Electronic Association (CEA) in the following attachment.

Contact Information:

Noah D. Horowitz
Senior Scientist
Natural Resources Defense Council
111 Sutter Street, 20th Floor
San Francisco, CA 94104
415-875-6100

Meghan Gabriel
Legal Fellow
Natural Resources Defense Council
40 West 20th Street
NY, NY 10011
212- 727-2700

NRDC Attachment

During the California Energy Commission rulemaking process, the Consumer Electronics Association (CEA) and some of their members led a massive misinformation campaign in an attempt to block the CEC standards. As an active participant in the CEC process NRDC observed these efforts directly and expect similar baseless claims to be made during the legislative process in Connecticut. The CEA is staunchly opposed to mandatory energy efficiency requirements of any kind. To help provide a more balanced perspective on these issues, we provide an overview of the claims they made and provide additional information on many of the issues.

Consumer Electronics Association's Track Record – On three different occasions the CEA and some of its members have come to California to oppose proposed efficiency standards involving, respectively, external power supplies, standby power and most recently TVs. In each case, CEA and its members projected dire consequences of empty shelves, job loss, and stifling of innovation. Not a single one of their claims has ever come to pass. In fact, California's pioneering efficiency standards for external power supplies (the little black box chargers) resulted in dramatic energy savings and have been copied by leading countries around the world.

To promote their opposition to the proposed California TV efficiency standards, the CEA and others created an industry front group called "Californians for Smart Energy" (visit www.casmartenergy.com) which included fear mongering headlines about job losses and negative impacts to the California economy. To the contrary, the standards will not result in job losses or generate negative economic impacts. Since none of the TVs at issue are made in America, no U.S. manufacturers will be harmed. Rather than harming California's economy, the standards will help it through the nearly one billion dollars in annual electricity savings that Californians will enjoy once the standards are in full effect. Connecticut's consumers and economy will similarly benefit from reduced electricity bills if the standards are passed.

Recent Progress – In large part due to the newly adopted California standards and incentives being offered by utilities in California and the Pacific Northwest, TV manufacturers are now designing dramatically more efficient TVs. At the January 2010 Consumer Electronics Show, manufacturers introduced a wide range of new energy efficient models. These included new LCD TVs that use LED backlights. All of these models meet the California and the proposed Connecticut standards. In addition, Samsung and Panasonic, the two leading producers of plasma TVs introduced new models that also meet the 2013 standards. This is significant as historically plasma TVs used considerably more energy than other similarly sized TVs. In fact, Panasonic's new 2010 42-inch plasma TV uses 99W, which is 40% less than their 2009 model.

The introduction of these new efficient models in addition to the 300 models that are already available at retail, further demonstrates that CEA was wrong when it predicted that there will not be TVs available that meet the California and proposed Connecticut standards in 2013. **To the contrary, much progress is indeed being made and establishing mandatory efficiency standards in states like Connecticut will provide a firm efficiency floor and lock in these savings for all models being sold.**

Support for the Standard – The CEA does not speak on behalf of the entire TV industry. In fact, 3M, a member of the CEA, strongly supported the energy efficiency standards in California. (3M produces an optical film that greatly increases the energy efficiency of LCD TVs.) The leading TV maker, Vizio, which represents every 1 in 5 TVs sold in North America, also testified in favor of the California standards. Vizio also recently introduced 30 new models for 2010, all of which meet the proposed Connecticut standard efficiency requirements.[1]

[1] http://www.vizio.com/news/VIZIOLaunchesArsenalofLEDBacklitLCDHDTVsin2010)

During the California proceeding, the LCD TV Association, which represents many of the leading component suppliers, also voiced their support for the CEC standard. In their letter of support[2] they stated:

> 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.

Innovation – Equipment efficiency standards have a long and successful track record of stimulating innovation. The existence of efficiency standards has not in any way hampered the introduction of new features for any regulated product. For example, today's refrigerators use one-quarter of the energy compared to older models and now include features such as frost free operation, ice makers, and through the door cold water.

In the California proceeding, the CEA incorrectly claimed that mandatory efficiency standards will stifle innovation and that their industry changes too quickly to be regulated. One can expect claims like "the standards will ban 3D TVs or internet enabled TVs." The fact is the new 3D TVs being introduced by the industry will not be impacted by the proposed standard. This is because under the standard the method for testing TV efficiency only uses 2D images. In other words, the power used by a TV when displaying 3D content is not measured by the test method or regulated by the standard. Moreover, manufacturers including Sharp, Vizio and Samsung have recently introduced several new models that include internet connectivity (e.g., the ability to download videos from Netflix, view "widgets" from Yahoo, etc.) AND comply with the California efficiency standards.

Status of California Standards – On November 18, 2009, the California Energy Commission voted to adopt the proposed TV efficiency standards by a unanimous 5 -0 vote. The CEC is now moving through the required procedural steps required for all new

---

[2] (http://www.energy.ca.gov/appliances/2008rulemaking/documents/2008-12-15_workshop/comments/LCD_TV_Association_TN-49783.pdf)

regulations which should be completed in the next few months. The opponents of the standard will likely suggest that the standards are far from final and that it would therefore be inappropriate to replicate California's standards in Connecticut. This is incorrect because the remaining steps in the California regulatory process are purely of an administrative nature. Should you wish to receive an update directly from the CEC on this process, we encourage you to call the CEC's counsel Mr. Dennis Beck at (916) 654-3974.

For additional information, please contact Noah Horowitz at 415-875-6100.