House Bill 349- FAVORABLE

Testimony of David Lis, Appliance Efficiency Standards Project Manager
Northeast Energy Efficiency Partnerships (NEEP)
To the Maryland House Economic Matters Committee
Regarding House Bill 349
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Chairman Davis, Vice-Chairman Rudolph, and members of the Committee: on behalf of Northeast Energy Efficiency Partnerships (NEEP)[1], I thank you for the opportunity to testify in support of House Bill 349, "Maryland Efficiency Standards Act- Televisions." My name is David Lis and I serve as the Appliance Efficiency Standards Project Manager for Northeast Energy Efficiency Partnerships based in Lexington, Mass.

NEEP is a regional nonprofit organization founded in 1996 whose mission is to promote the efficient use of energy in homes, buildings, and industry in New England, New York, and the Mid-Atlantic states through regionally coordinated programs and policies that increase the use of energy efficient products, services and practices, and help achieve a cleaner environment and a more reliable and affordable energy system.

Maryland's leadership on appliance efficiency standards

House Bill 349 represents the most recent effort to implement cost effective energy efficiency appliance standards in Maryland. This will not be, however, the first time Maryland has sought to realize the powerful benefits of efficiency standards, as in 2004 and 2007 the Maryland House of Delegates passed legislation to set minimum levels of efficiency for a number of residential and commercial products. Maryland was in fact the first state in the Mid-Atlantic/Northeast region to adopt a model package of efficiency standards that was introduced throughout the region in 2004. The products involved in these packages were carefully chosen based on; their ability to deliver significant energy savings and emissions reductions to the state of Maryland, while saving residents money on their energy bills, the fact that they weren't preempted by any federal standard; and because they were readily available in the marketplace.

Maryland's latest opportunity: television standards

While HB 349 clearly demonstrates Maryland's leadership in strong energy efficiency policy, it was not developed in a vacuum. This most current standards effort, like the other previous bills, is part of a coordinated regional effort with a number of other states. In historically typical fashion, the state of California led the way by enacting television standards in November of last year. NEEP and other organizations have since partnered with Northeast and Mid-Atlantic States to recommend televisions standards that are consistent with the standards developed in California.

Similar processes are currently underway in Massachusetts (H3124/S1524) and Connecticut (HB5217) to adopt a package of standards, including efficiency requirements for televisions. The Bills in Massachusetts and Connecticut are being supported by a majority of Committee members.

[1] These comments are offered by NEEP staff and do not necessarily represent the view of the NEEP Board of Directors, sponsors or partners.

In addition to the pending bills in Massachusetts and Connecticut, both New York and Pennsylvania appear on the verge of introducing proposals for television standards. The state agencies (Department of State and the New York State Energy Research Development Authority) in New York responsible for developing technical standards are in the process of finalizing draft standards for televisions, modeled after the California Standard. While not yet introduced in Pennsylvania, legislation for the standards package is listed in the Governor's Climate Change Action Plan as a priority for 2010 action.

The most important aspect of the various television standards efforts (adopted California standard, proposed Massachusetts standard, proposed Maryland standard and recommended New York/Pennsylvania standard) is that they all have been developed with an eye towards consistency. While there are small differences between the California standard and the proposed bills in Massachusetts and Maryland, they share the same core technical specifications.

Why Televisions?

The U.S. Energy Information Administration estimates that television energy use, about 5.3 percent of residential electricity use in 2006, will grow to nearly 7.2 percent by 2030[2], making them the most energy consumptive, unregulated product in the home (Including peripherals like set top boxes boosts TV related energy use to 10 percent and higher). Television energy use is increasing due to three factors: the average hours of operation increases every year; the average television screen size is bigger than ever; and many new high-definition digital televisions use more energy than their analog predecessors. The fact that television energy use is not federally regulated avoids the issue of federal preemption.

Economic and environmental benefits to the state and its residents

According to the American Council for an Energy Efficient Economy (ACEEE) and the Appliance Standards Awareness Project (ASAP), enacting minimum efficiency standards for televisions in Maryland would result in 306 GWh in annual electricity savings by 2020 (enough to meet the annual needs of about 36,000 typical Maryland households), and an annual reduction of 220,000 Metric Tons of Carbon dioxide emissions (equivalent to the annual emissions of over 42,000 cars[3]) and save consumers $39 Million in annual electric bills[4]. As Maryland works to implement smart strategies to achieve Governor O'Malley's EmPower Maryland Initiative (15 percent reduction in energy consumption by 2015), minimum efficiency standards on targeted products are one of the most cost effective measures available, as the cost to the state is negligible. A Technical Potential study NEEP conducted in 2005 showed that, as opposed to electric generation, which costs anywhere from 8-17 cents/kWh, and rate payer efficiency programs, which come in generally in the 2-5 cents/kWh range, standards programs generally are the most cost-effective at only 1-2 cents/kWh.[5]

[2] Calculated using 2005 Televisions/Set top Box energy breakdown and projecting those proportions on 2006 energy usage and the estimate for 2030. US Energy Information Agency; An Updated Annual Energy Outlook 2009 Reference Case Reflecting Provisions of the American Recovery and Reinvestment Act and Recent Changes in the Economic Outlook (http://www.eia.doe.gov/oiaf/servicerpt/stimulus/aeostim.html) and Miscellaneous electricity services in the Building Sector (http://www.eia.doe.gov/oiaf/aeo/otheranalysis/mesbs.html).

[3] EPA's Greenhouse Gas Equivalencies Calculator; http://www.epa.gov/RDEE/energy-resources/calculator.html

[4] ASAP's website; http://www.standardsasap.org/state/2010%20Model%20Bill/states/2010analysis_MD.pdf

[5] Economically Achievable Energy Efficiency Potential in New England, May 2005, http://neep.org/uploads/policy/Updated_Achievable_Potential_2005.pdf

Support from within the television industry

While it is important to acknowledge that a large electronics trade association, the Consumer Electronics Association (CEA), opposed this standard in California (as they have every proposed standard for any electronic product), there is another set of manufacturers and trade associations that support the standards. Leading manufacturer Vizio, component supplier 3M, and the LCD TV Association have all submitted formal comments stating this standard can easily be met with existing technologies and very importantly, can be met using technologies that will not increase manufacturing costs.

Unfortunately, the CEA continues to spread misinformation to policymakers regarding minimum efficiency standards for televisions. The fact of the matter is that the televisions will represent the first major consumer electronics product to come under standards program and some in the industry have decided to fight back with concocted analysis and scare tactics. Lobbyists from the CEA are roaming the halls of the Capitol incorrectly claiming these standards will cost jobs, stifle innovation and result in restricted consumer choice. These same scare tactics have been used by various groups opposing standards for years and have unequivocally proven false. Instead we have numerous examples of products that have seen great progress in performance, growth in sales, decline in consumer prices, all while standards have helped drive efficiency gains and energy savings. Some examples of these types of products are refrigerators and clothes washers, which today offer more product features, yet use a fraction of the energy of their predecessors. Let me state very clearly some point-by-point rebuttals of the claims from industry you're likely to hear:

- These proposed standards will not ban any kinds of televisions (i.e. units with very large screens, plasmas, etc.), nor will they prevent manufacturers from pursuing exciting new innovative technologies. This standard applies to televisions with screen sizes less than 1400 square inches or 58 diagonal inches. A variety of manufacturers have qualifying units from each of the most popular plasmas and LCD technologies. The current test procedure for televisions only measures for a specific set of functions. Additional "innovative" functions (i.e. 3-D TV, internet TV, etc) outside of the typical display functions are not measured by the test procedure, and thus would not impact the ability of televisions with innovative features to meet the proposed standards.

  In fact, standards often drive energy-efficiency innovation. Shortly after the 2001 refrigerator standard took effect, manufacturers offered units using 20 percent less energy and today offer units using 30 percent less energy; neither of these levels was available when the standard was issued in 1997. For clothes washers, the best units today reach efficiency performance levels unheard of when the 2007 clothes washer standard was announced in 2001.

- ENERGY STAR is a voluntary program that affects a fraction of the market. While we are very supportive of the role ENERGY STAR labeling plays in promoting energy efficiency, participation is voluntary and neglects the products at the low end of the efficiency spectrum. There are always stragglers in any marketplace, including manufacturers that ignore the interests of their unsuspecting customers. Standards are an easy mechanism to assure all products will meet a basic level of efficiency.

- Retailers will not be adversely affected by this standard. Based on data submitted by industry and other experts, the California Energy Commission has concluded that the proposed standards will have no impact on TV purchase prices, with no drop off in quality or features. There is no reason to believe the standard will impact TV prices or sales and, therefore, Maryland tax revenue. Dozens of products are subject to efficiency standards today and there is no evidence these standards have

inhibited sales. Retailers will simply replace the non compliant products with units that meet the standard.

- Manufacturer rhetoric is in complete contradiction with their actions. Last month at the Consumer Electronics Show nearly every television manufacturer displaying their latest offerings – including many who oppose this standard - bragged about the energy efficiency of their new 2010 models, most of which already comply with the proposed 2013 standards and come with all the latest features, including the ability to play 3D content and connect to the internet.

Conclusion

State and federal governments have utilized minimum efficiency standards for over 30 years to achieve significant energy savings for their constituents by addressing energy consuming appliances, both residential and commercial. For years TVs used comparatively small amounts of energy compared to their larger appliance relatives. As I think we are all quite aware, times have changed. Today's high-definition flat-screen TVs consume far more electricity than their relatives from a generation ago. Consumers are also buying more TVs, and watching them more often. **Today TVs are one of the largest consumers of energy in the household, at nearly 5 percent of total electricity usage (projected to climb to 7 or 8 percent in the next 10 years.** Televisions represent an excellent opportunity for Maryland to be a leader in corralling wasteful energy use, and saving consumer's money in the process. Let's not allow misinformation to get in the way of sound policy.

For additional background information about energy efficiency in general, and the use of minimum efficiency standards for appliances, refer to Appendix A.

Thank you to the Chairmen and Committee members for your time today. Feel free to contact me with any follow up questions or information requests.

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Appendix A- Additional Background on Minimum Energy Efficiency Standards

Energy Efficiency

Energy efficiency is the ability to get more work (function) out of a device or appliance using less energy. Many people confuse energy conservation with energy efficiency and incorrectly associate efficiency with sacrifice. For example, consumers may believe shutting off lights or turning down their thermostat means efficiency. **Energy efficiency actually means working smarter**. More efficient consumer products simply use less energy to perform the same tasks as comparable products. Energy efficiency allows Maryland residents to save energy and money while going about their business, with no inconveniences or sacrifice of comfort.

Most consumers don't think about purchasing energy. Instead they want the things that energy provides; cold drinks, warm showers, clean dishes and yes, a clear, crisp display on their television sets. Energy efficient products not only provide these services, but do so using less energy, and in the process, save consumers energy, money and the environment (by reducing harmful emissions). When operating costs (energy expenditures) are considered over the course of an appliances lifetime, they can be on the same scale as the upfront purchasing price. For example, a typical television (TV) can cost between $500-$1000, while the cost of operation over a 10-year lifetime can range between $300-$700. When the lifetime savings in energy costs are compared to the incremental increase in upfront costs, purchasing energy efficient products typically provide consumers significant savings. The beauty of television technology is that increases in efficiency do not bring incremental cost. Consumers begin to see positive returns on their efficiency choice immediately.

At this crucial point in your state's history when consumers and governments alike are searching for ways to reduce energy consumption, energy efficiency has distinguished itself as the cheapest, easiest way to achieve these goals.

Policy Rationale for Standards

Opponents reason that if the economics are so overwhelming, people will buy efficient products without the state setting standards. In fact, some consumers do purchase the energy efficient products. National market share figures for TVs meeting the proposed standards are already at approximately 25 percent. Standards are not focused on the most high efficiency products; instead they target the bottom fraction of markets that continue to lag. Unfortunately there are a number of significant market barriers that cause this lag and prevent even very cost-effective energy-saving products from achieving higher market shares. In some instances, even aggressive ratepayer-financed incentive programs cannot convince purchasers to choose efficient products.

Let me highlight a number of market barriers that are common reasons efficiency does not happen on its own:

- *Consumer awareness* - Many consumers do not consider operating costs when purchasing appliances. They are not aware that operating costs for some appliances can cost as much over the life of the product as the entire upfront cost.
- *Split incentives/third party decision makers* - Purchasers and user of appliances can often be different people (landlord/renters). In this scenario the landlord/purchaser has no concern for operating costs. Initial price is their singular concern. Incremental upfront cost for efficiency can often prevent this purchaser from buying efficiency.
- *Stocking practices* - In some cases, retail outlets do not stock or offer high efficiency products at their location, not even providing consumers the choice of an efficient product.

Clearly, a number of market barriers to very cost-effective efficiency improvements exist for both consumer and business products. Efficiency standards are perhaps the most cost-effective way to address these market barriers and to **assure all purchasers of a basic level of energy efficient performance**. A report issued by Appliance Standards Awareness Project in July 2009 (**"**Ka-BOOM! The Power of Appliance Standards") addresses these market imperfections in more detail and can be downloaded from www.standardsASAP.org.

Standards "Lock in" Market gains, Play Crucial Role in Transforming Markets

You will hear from some industry groups that the voluntary market pull programs, ENERGY STAR for instance, are all that is necessary to drive improvements in efficiency. History can attest that this is not the case. While ENERGY STAR programs have been quite successful, they are necessarily limited, because markets only truly transform with the complement of both voluntary programs and regulated standards.

NEEP sits in a unique position with respect to efficiency, working with both policy actors to ensure efficiency is a top of mind resource for energy management (including standards), but also with the on-the-ground implementers of energy efficiency programs, typically electric and gas utility companies like PepCo and Baltimore Gas & Electric (Which is in support of this bill). NEEP's Northeast Retail Products Initiative, which is made up of the Northeast regions efficiency programs, is a nine-time ENERGY STAR Award winner.

We view these two activities as complementary to one another. As the market-pull programs encourage consumers to choose more energy efficient products, market share of the high efficiency products grows. As programs reach maturity, markets become so transformed that it becomes time for the "floor" of efficiency to be raised through minimum standards. Promotion of ENERGY STAR televisions has resulted in roughly 85 percent of models meeting this criteria. By now moving the standard to this ENERGY STAR level, we can **"lock in"** the progress that the programs have achieved. The beauty of this cycle is that the ENERGY STAR level was recently improved and the process can begin anew. Like rungs on a ladder, programs reach for the next rung, while standards follow by stepping up to that previous rung. This process, often referred to as market transformation, is at the core of our organization's mission and should be a goal of any smart energy policy.