

May 15, 2009

VIA E-MAIL ([Kaplan.Katharine@epamail.epa.gov](mailto:Kaplan.Katharine@epamail.epa.gov))

Ms. Katharine Kaplan  
Program Manager, ENERGY STAR Program Development  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW (6202J)  
Washington, DC 20450

Re: Comments on ENERGY STAR TVs Draft 1 Version 3.1

Dear Ms. Kaplan:

Panasonic Corporation of North America ("Panasonic"), a leader in the manufacture and sale of flat panel and other television technologies, appreciates the opportunity to comment on proposed changes to the eligibility criteria within EPA's Draft 1 of the ENERGY STAR TVs Version 3.1. As a longtime ENERGY STAR Program Partner, Panasonic recognizes the many challenges faced by EPA in revising product specifications and we welcome the Agency's ongoing efforts to solicit and consider stakeholder input and maintain an open and transparent process. Our comments in this letter will focus on two key issues: 1) Measurements of luminance; and, 2) On-mode power consumption.

**Measurement of Luminance:**

In Draft 1 Version 3.1, EPA stated its "significant interest in ensuring that products are tested and qualified as ENERGY STAR in the mode in which they will ultimately be viewed in the home." This objective, however, was largely addressed by EPA in Version 3.0, by permitting manufacturers to use a 'forced setup menu' prompt, which strongly encourages consumers to select the less consumptive "Home" or standard brightness mode. Use of the forced menu at setup accommodated both EPA's desire to promote optimal energy savings by TVs used in the home and manufacturers' need to compete for sales based on picture brightness necessitated by typically very bright retail store environments.

The forced menu at setup solution will be the means to save millions in kilowatt hours and attendant corresponding reduction in greenhouse gas emissions. Yet, it appears the EPA is now considering changes to the specification's test methodology through the imposition of limits to the differential between standard "Home" mode and the selectable mode with the highest luminance. Panasonic strongly opposes imposition of such a differential limit, regardless of whether it is based upon a percentage relationship or actual wattages.

There is no empirical evidence supporting EPA's underlying "concern" that consumers are somehow forced to raise TV brightness settings in the home. Nevertheless this proposal is described as fulfilling consumers' expectations of the ENERGY STAR logo regarding energy savings and product performance. For our part, we have no experience whatsoever from our customer support call centers to suggest customers are unhappy with the "Home" picture brightness of their Panasonic HDTVs. We also are unaware of any products being returned at retail because of issues associated with picture brightness. So, frankly, this limiting proposal appears to be addressing a non-existent problem.

Further, there is no practical reason to measure a TV in its most consumptive mode (retail or highest selectable setting) when the units are already shipped in the less consumptive "Home" setting, and when consumers

are admonished by the initial screen prompts to choose the less consumptive “home” or “standard” brightness level. It is not logical for EPA to impose any requirement involving a picture setting for which the overwhelming application will be confined to inside a retail environment.

By creating a direct linkage between home and the retail/highest selectable settings, EPA would risk losing substantial energy savings inasmuch as manufacturers would be forced to increase their home mode brightness settings in order to minimize the gap between the two settings. Compelling manufacturers to unnecessarily raise picture brightness in home mode in order to meet a luminance requirement utilizing a retail mode setting seems contrary to the ENERGY STAR program’s direction for the Version 3.1 specification. As we have expressed in our discussions with you and other stakeholders, we oppose jeopardizing the energy savings already in place because of “concerns” that have not been sufficiently or reasonably substantiated.

Further, different TV technologies have unique characteristics tied to luminance, which should be recognized and considered by the EPA in its effort to be “technology neutral.” For example, most plasma TVs automatically reduce their brightness and power as the average picture level (APL) increases beyond a certain threshold. Regardless of technology type, as evidenced by many 2009 model TVs in the market, it is feasible to achieve significant energy savings in the “home” mode while simultaneously providing an enjoyable customer viewing experience in the home environment. One of the stakeholder proposals to EPA would require the “home” mode power to effectively be greater than 83 percent of the “retail” brightest mode power. This proposal would significantly and negatively impact the current energy savings achieved in the “home” mode as currently available in the market. Therefore, it would be counter to the goal of saving energy if such a requirement were imposed to limit the potential for sizeable energy savings in the “home” mode.

Instead, in responding to this question, we urge EPA to follow the lead of the European and Australian governments. They opted in favor of TV power regulations that do not limit the “home” mode energy savings. Despite the lack of solid evidence of a customer perceived luminance concern in the “home” mode, these regulations are pre-emptively proposing to require the “home” mode luminance to be no greater than 50 or 65 percent (respectively) of the brightest selectable mode. The European and Australian approach to these regulations suggest a recognition that if the potential problem is a lack of luminance in “home” mode, then that is the characteristic, *i.e.* luminance, that should be addressed with a minimum level, not power. This approach allows the manufacturer greater flexibility to supply TVs with sufficient brightness while still saving as much energy as is possible in the “home” mode for any given technology.

In summary, should EPA elect to address luminance in Version 3.1, and we believe there is no credible reason to use power as the metric in order to address perceived or anticipated concerns. Therefore, picture brightness would be the proper approach to the luminance issue, and simple harmonization with the EU or Australian levels would be appropriate in order to safeguard against unnecessarily inflated home mode brightness levels.

#### **On Mode Power Consumption:**

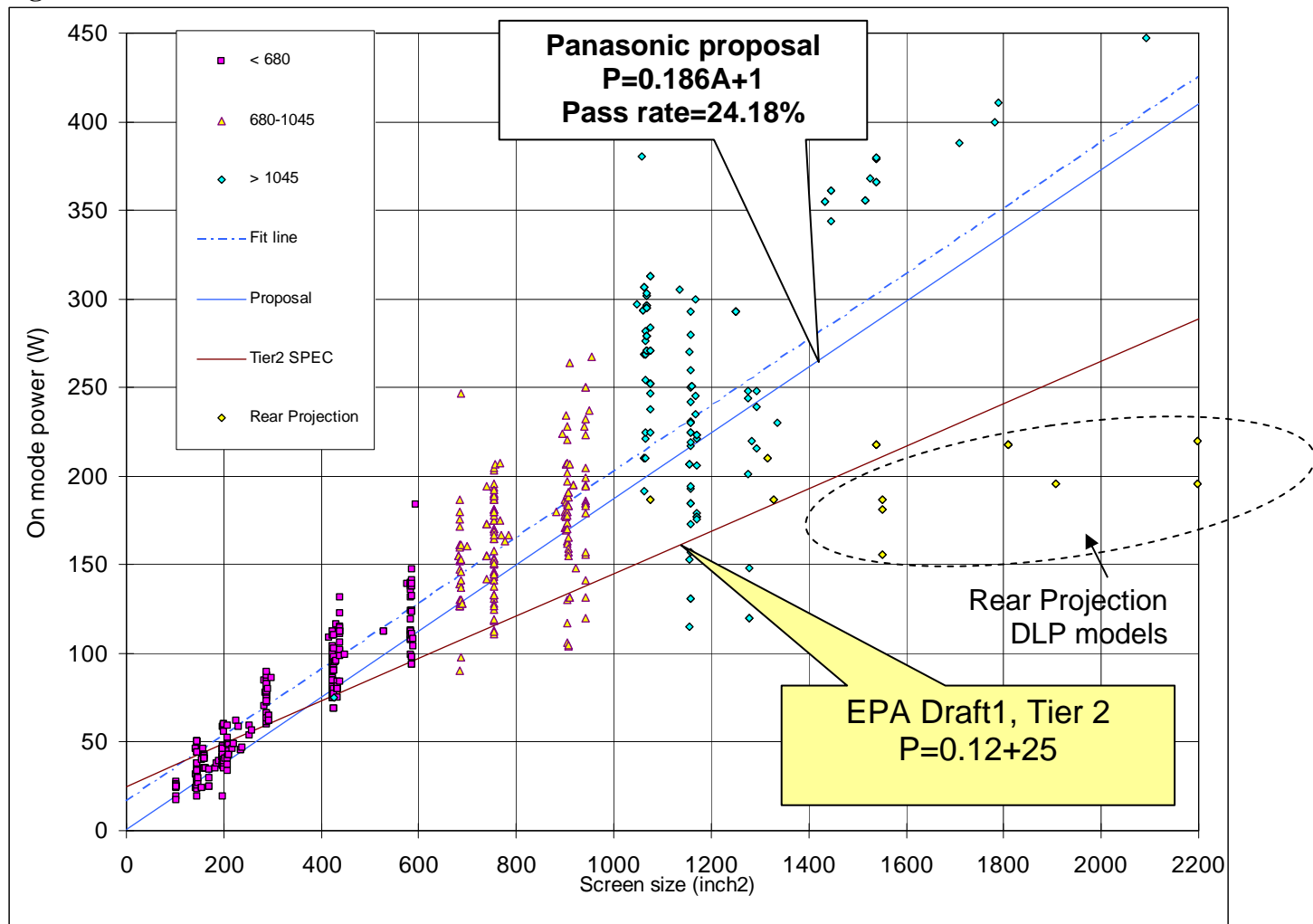
Panasonic believes the EPA should set challenging yet attainable limits for TV on mode power consumption in Version 3.1, based on available data and reasonable projections of the future availability of more energy efficient models in the consumer-priced TV marketplace. This approach is consistent with the EPA’s pledge to “watch closely the evolution of both products and market conditions” in the process of setting specifications.

Also, we strongly urge EPA to treat all technologies equitably and not to impose disproportionately more rigorous qualifying criteria on select display sizes. Frankly, it is not in any stakeholder’s interest-- including EPA’s—to have an ENERGY STAR TVs specification that only certain technologies or display sizes can meet.

Under Version 3.1 Draft 1, EPA is proposing a formula ( $P_{\text{Max}} = 0.120 \cdot A + 25.0$ ) that limits on mode power consumption for purposes of qualifying TV models. The EPA formula, when applied to ENERGY STAR's latest available data set (1B) of 637 models, qualifies about 24.3 percent of the data base's models. However, the qualifying models are overwhelmingly and disproportionately smaller size models or large models of one technology, which is forecast to disappear from the marketplace within the next 1-2 years.

To address this obvious imbalance, Panasonic proposes the following qualification formula: ( $P_{\text{Max}} = 0.186 \cdot A + 1.0$ ). Figure 1 exhibits this Panasonic-proposed qualification line (in blue) and the EPA Draft 1, Tier 2 line (in red) superimposed on the ENERGY STAR data set 1B. The slope of our line is identical to the best linear fit of EPA's current data, which is shown as a dashed blue line. The intercept of our line was adjusted for 25% pass or qualification rate.

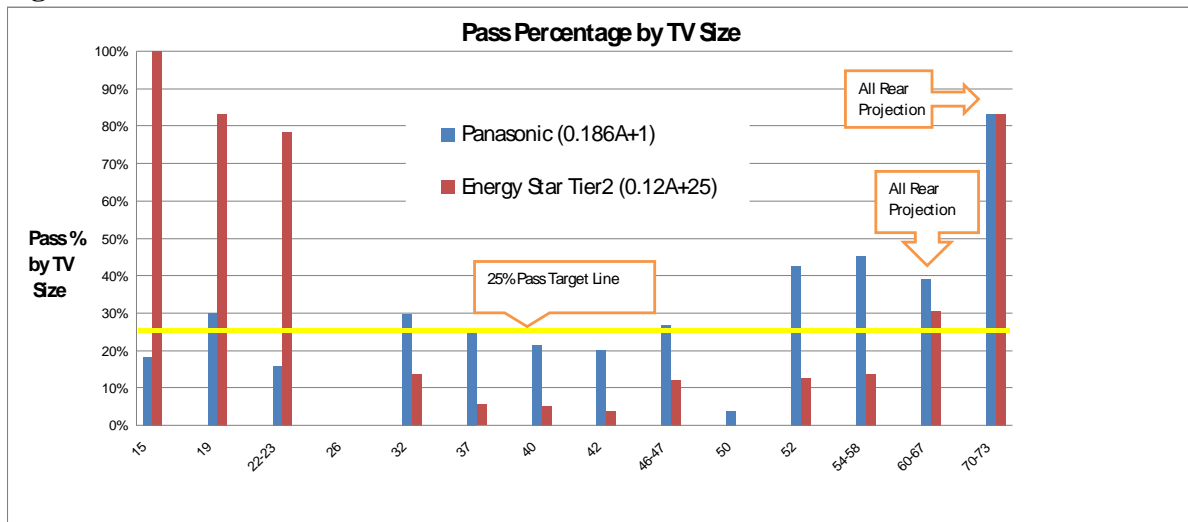
**Figure 1**



Using ENERGY STAR'S latest data set 1B, the Panasonic formula would yield a comparable overall pass rate (24.18%) that is balanced across all TV size groupings. A comparison chart (Figure 2) graphically depicts the qualification rates for the various TV sizes based on each respective formula. Panasonic's formula allows 22.8% of TVs 23 inches and

smaller to qualify and 24.5% of TVs 26 inches and up to qualify for ENERGY STAR. In contrast to the Panasonic proposal, the EPA Draft 1, Tier 2 proposal's qualifying formula allows 82.7% of TVs size 23 inches or smaller to qualify while only 9.8% of TVs 26 inches and up would qualify. Compounding the proposed formula's inequity is that the only qualifying models 60 inches and larger are rear projection models, which as earlier noted, will soon disappear from the marketplace.

**Figure 2**



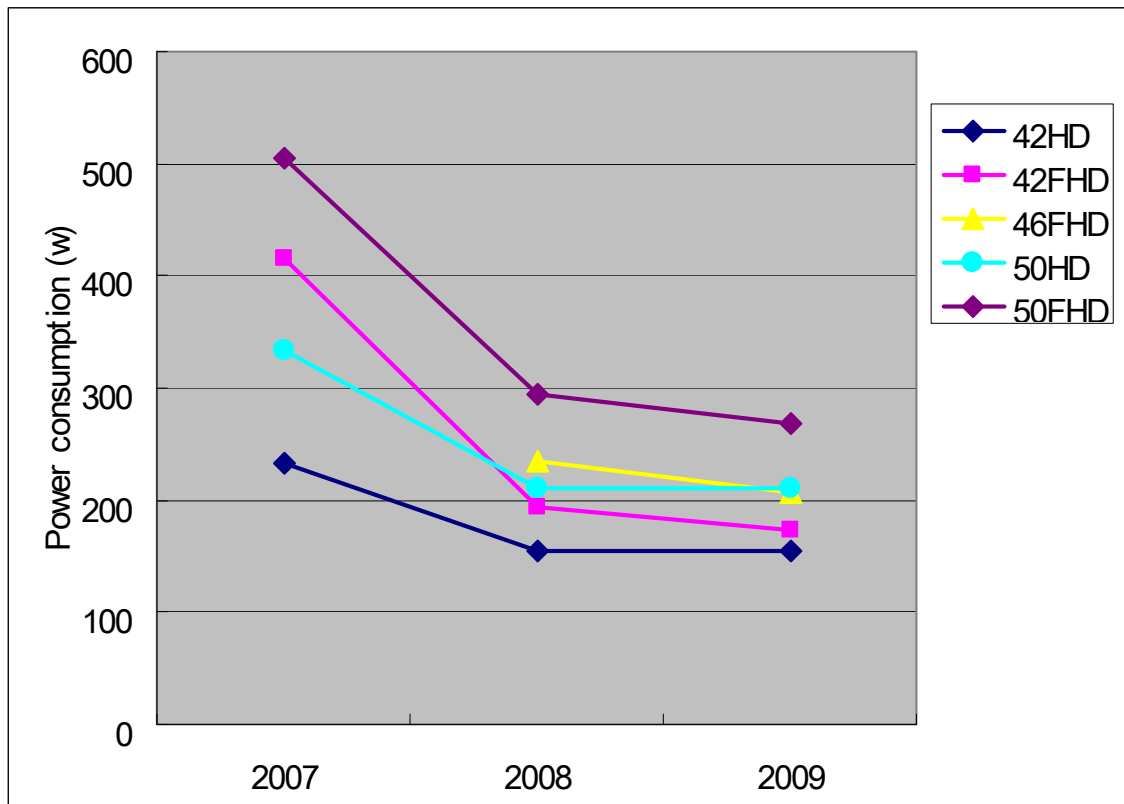
Further, in the case of the EPA Draft 1, Tier 2 formula, the smaller size models (20 inches) need only reduce their power consumption by about 31% in order to qualify for ENERGY STAR, while larger size displays face a much more daunting challenge, requiring 44 to 52% reductions in power consumption (42 and 50 inch models, respectively). As Panasonic pointed out to EPA in separate meetings on April 23 and April 24, 2009, we do not believe that the mid- to larger-size models have “more room for improvement” or that an “aggressive specification” in larger sizes would help incentivize efficiency improvements, as EPA indicated.

ENERGY STAR's Version 3.1 Draft 1 proposal also appears to be predicated on the extremely optimistic assumption that prior dramatic efficiency improvements can continue into the Tier 2 and Tier 3 effective dates. It is extremely unlikely, however, that TV manufacturers—including Panasonic—can continue the substantial efficiency improvements on the magnitude of 30% or more as EPA projects. Much more likely, annual efficiency gains of perhaps 10% annually will be realized by the current prevalent, market-dominant flat panel TV technologies. As is widely reported, even as we and others work hard on additional technologies, none is likely to be realized in the near future—the period under consideration in this proceeding—in both the most sought-after sizes or at acceptable consumer prices.

It should also be noted that ENERGY STAR TVs 3.0 Tier 1 levels were met in part because of revised test procedures and the earlier extended period of negotiation between EPA and manufacturers. This coincidence of factors resulted in high qualification rates for Tier 1, but will not likely be repeated under Tier 2, and certainly not in Tier 3. Simply put, efficiency gains of 30-40% are not sustainable on an ongoing basis in the consumer TV arena.

Panasonic is proud to report considerable efficiency improvements to our plasma display panel HDTVs over the past three years. As evident in the chart below (Figure 3), however, the improvements are leveling out in 2009, and achieving similarly large efficiency gains will be extremely difficult in the coming years covered under Version 3.1.

**Figure 3**



While we certainly appreciate EPA's aspiration to create a robust specification with a reasonable "shelf life," this desire should be balanced by an equitable approach that can be reasonably supported with actual data. Moreover, as we indicated above and in our meetings, qualification to the TV specification should not be constrained by display size or technology.

Moreover, Panasonic is concerned that the proposed Tier 2 represents an inappropriate mixture of minimally substantiated projection products, and overcompensation for Tier 1's qualification levels. We firmly believe this combination will produce less than optimal public policy and ignores one of the ENERGY STAR program's best attributes—the ability to rapidly transform markets toward ever more efficient products.

Indeed, we believe Tier 1's high qualification rate should be viewed as testament to the success of the ENERGY STAR program in helping promote rapid design, build, and marketing of more efficient, yet practically priced, HDTV models. The high qualification rate ought to be construed as evidence of the program's success instead of grounds to rapidly ratchet down the specification without convincing evidence that the new levels can be attained within the prescribed short timetables.

Panasonic will continue to work constructively with you and your colleagues throughout the ENERGY STAR TVs 3.1 specification development process. As a valued ENERGY STAR Partner since the program's inception, Panasonic greatly appreciates EPA's forward-looking efforts to maintain the ENERGY STAR label's value in the marketplace. Although we believe the Draft 1 specification requires substantial modification, we are confident that subsequent revisions can produce an aggressive yet technologically and commercially feasible specification.

We ask EPA to consider our proposed revisions to the ENERGY STAR TVs 3.1 specification which are intended to produce a viable specification that challenges and incentivizes manufacturers to produce even more efficient products in the future. And, we would be pleased to discuss our suggestions in more detail at your convenience; and please know that we appreciate you and your colleagues' continuing consideration of our views

Sincerely,

/s/

Peter M. Fannon  
Vice President  
Technology Policy, Government & Regulation  
Panasonic Corporation of North America