NRDC Comments to ENERGY STAR's July 20 Final Draft TV Specification

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NRDC has been an active participant throughout EPA's process to upgrade its ENERGY STAR specification for new TVs. In summary, we are very supportive of the direction EPA is going and are in full agreement with the stringency and effective dates proposed. Our comments contained below focus on the July 20th final draft specification and the few key remaining unresolved issues (luminance/settings, data acquisition modes, reporting requirements, and specification stringency).

1. On Mode Requirements – NRDC strongly supports the levels proposed by EPA for Versions 4.0 and 5. 0

Throughout the specification setting process NRDC has repeatedly expressed support for ambitious, but achievable on mode power requirements. The TV market is a very dynamic one and almost every week another company introduces a new more energy efficient model. Great examples are the new LCD models introduced by Sharp this month. These models offer cutting edge features, incorporate new LED backlights and are ultra thin (See: http://www.twice.com/article/307744-Sharp_Unveils_Aquos_LED_LCD_TV_Lineup.php). These models are in the exact mid and large sizes – 32, 40, 46, and 52 inches – which manufacturers repeatedly claimed during recent EPA stakeholder meetings they would not be able to meet ENERGY STAR V 4.0. **Preliminary data from Sharp shows that these models not only meet V 4.0 but also meet V 5.0, three years before its effective date**.

We agree with the manufacturers and the retailers that the smallest models would qualify for the initial V 4.0 proposal at an unacceptably high rate. To that end, we concur with EPA's decision to tighten the specification for models for < 275 square inches. We also agree with EPA's decision to leave the portion of the spec > 275 square inches unchanged as there is ample evidence that a wide range of models will be able to meet this part of the specification. While tightening the portion of the specification that addresses smaller sizes causes the overall qualification rate to decrease, this is not a reason for concern as prior experience has shown the number of qualified models to increase dramatically once the specification goes into effect. In addition, reducing the specification for the larger TVs would reduce in significant lost energy savings as these TVs are frequently the primary home TV with the highest hours

of use and energy savings. In addition, many of these models are located in commercial settings such as bars, hotel lobbies, health clubs, etc and are frequently on for 10 plus hours per day.

We also agree with EPA's decision to include the follow on performance tier, Version 5.0, now rather than waiting. The V 5.0 on mode specification remains unchanged from the prior draft. We think this specification will help drive significant innovation in the market and provides a clear target for industry to base their future designs on. We also agree with EPA's decision to limit the power use of the very large models. This prevents a "give back" in energy savings that would occur as models continue to grow in size with a proportionate increase in power use. To eliminate any confusion on this point, ENERGY STAR is NOT saying super sized TVs can not earn their label. This "progressive specification" simply says, really large models need to work harder to earn the voluntary ENERGY STAR label.

2. Settings/Luminance – NRDC supports EPA's efforts to encourage users to select the home mode and to minimize potential gaming that may occur with forced set up menus

The structure of ENERGY STAR's specification encourages manufacturers to employ a forced menu that requires users to pick an operating mode during initial set up. Several stakeholders have expressed a concern that this worthwhile approach may potentially result in some manufacturers producing models that have an overly dim picture level in home mode. This motivation increases as the stringency of various voluntary and mandatory programs evolve around the world.

This is a complex issue and stakeholders have been working hard to strike the magic balance of not interfering with the brightness of TVs displayed at retail, encouraging users to pick a more appropriate home setting, and achieving sufficient certainty that consumers will not be disappointed and shift to a brighter mode that consumes significantly more power (potentially 10 to 30+ % more).

Given the desire to finalize this specification in a timely basis, we are comfortable with EPA's decision to pattern its specification on the European approach for luminance. We offer the following recommendations/concerns:

1. Greater clarity and precision is needed for the test method for measuring luminance. In particular, the method must spell out the distance and angle the measurements must be made from. As written, the tester could choose to make the measurements a few feet away thereby negating any benefits from the luminance restrictions contained in the spec.

2. EPA proposes adoption of CEA's new test method which is largely based on IEC. While this may be a good idea, the CEA proposal has not been distributed to all stakeholders. As such, we believe EPA should delay final consideration of this method until it has been made available for review and discussed by all interested stakeholders.

To maximize the effectiveness of this test method we urge EPA and CEA to add language to the specification that broadens its application. Rather than limit testing, as currently written in IEC, to home mode when a forced menu is selected, the test method should be expanded to allow for testing and reporting of any selectable mode in the forced menu. This way this test method will have maximum utility by policy makers interested in setting performance requirements, rebates, developing energy use labels, etc.

The test method simply states what is being measured and how to make the measurement and report the results. This is appropriate. We then leave it up to the policy makers to decide how to apply the data. For example, they may decide to establish a ratio of allowable power between modes and/or have the ability to assess the relationship between luminance and power levels. As currently drafted there is no way to officially obtain power use in any selectable mode other than home.

3. We encourage EPA to work with manufacturers and retailers to standardize the language on the screen seen by the user while selecting a mode. For example, some common language should be developed and required that encourages users to select home mode and warns against selection of retail mode (e.g. retail mode not intended for home use as its unnecessarily bright and can use a lot more power.)

3. Data Acquisition Mode (DAM) – We think EPA has offered a reasonable compromise for this not well understood mode.

A potentially growing feature on new TVs is the so called data acquisition or DAM mode. This feature provides automatic updates to TVs with this feature. NRDC previously expressed its concerns about the energy use related to this feature and concurs with ENERGY STAR's approach which: a) requires the feature to be shipped disabled and to require interested users to opt in, and b) establishes modest targets in V 4.0 and increases them in V 5.0.

As roughly 3 out of 4 homes in the US subscribe to pay TV, the vast majority of TVs are already receiving from their service provider the program guide content and other similar download content that would also be obtained by TVs with an enabled DAM mode. Today a growing number of new TVs are consuming energy to download similar guide information from parallel systems, each consuming energy at both the user and senders end.

In the spirit of compromise we accept EPA's V 4.0 DAM levels provided the V 5.0 and other proposed requirements remain. We also want to remind EPA and other stakeholders that the V 4.0 allowance of 80 W hr translates to just under 30 kWh/yr and may significantly increase the annual energy use of some models, in particular smaller models. To put this into perspective, the annual energy use of a new ENERGY STAR laptop computer is no more than 40 kWh/yr.

4. Reporting Requirements – Provide more specific guidance on what data to report

To adequately track the status of ENERGY STAR qualified models and best inform future decisions made on luminance/settings, we would like to see EPA add a form in the back of the specification for the exact data that must be reported to EPA. These shall include:

- Viewable screen dimensions (height, length and diagonal)
- Luminance measurements in home, retail and most consumptive mode (if different than retail)
- Power consumed in home, retail and most consumptive mode