NRDC Input on ENERGY STAR Final Draft Version 8.0 Specification for Televisions

July 21, 2017

On behalf of the Natural Resources Defense Council (NRDC) we respectfully submit our feedback on the EPA's Final Draft Version 8.0 product specification for televisions issued on July 18, 2017. These comments supplement those which we previously submitted in response to the development and issuance of drafts 1 and 2.

As we stated previously we are broadly supportive of the content of the proposed requirements in Version 8.0 and appreciate the steps EPA has taken in its final draft to: a) increase likely consumer satisfaction with Automatic Brightness Control in the default picture setting by establishing a minimum screen brightness level of 125 nits at the test point of 3 lux, the dark room viewing test condition, b) increase the persistence of energy saving features in picture settings beyond the default home picture setting, and c) add text to address software updates and their potential impact on TV energy use.

Below we provide supplemental comments on EPA's proposed language/guidance on additional energy saving features like Motion Detection Dimming.

I. The guidance language concerning other energy savings features is not sufficiently clear and stronger language is needed.

Through this specification update process, data from NRDC and others was presented that brought into question the savings that some manufacturers claimed for their Motion Detection Dimming feature. During testing, some models with this feature used a lot less energy during the test when the IEC test clip required by DOE's test procedure was being played than when conventional content – content that did NOT have overly short scenes/frequent scene changes – was played. In other words, the TV would produce really low energy use scores in the lab but use more energy in real life.

In addition, manufacturers automatically disabled this feature when the picture

setting was changed from the default to any other such as sports, cinema, video game play, etc, which seemed odd given this feature is promoted as providing consumers with a better experience when scenes change frequently or there is rapid motion, exactly the conditions one might experience when watching sports or playing video games. These two findings bring into question the energy savings claimed by this feature.

In its July 18, 2017 cover letter to stakeholders EPA included the following language:

Other Energy Saving Features - EPA received comments on the proposal to prohibit products from being certified with features enabled unless they deliver energy savings comparable to those reflected during testing. EPA understands that some manufacturers may have an interest in continuing to certify products with features such as motion detection dimming. Since the release of Draft 2, EPA has some indication that the implementation of motion detection dimming has improved in 2017 models. EPA encourages manufacturers to share additional data to help improve understanding of such energy savings features across different content. As with ABC, where its energy savings potential has been demonstrated and widely accepted by stakeholders, once energy savings of this feature is well understood, EPA will be in a better position to encourage its use.

It was not clear to us exactly what this language meant or how it would be implemented by TV manufacturers or test labs/certification bodies during certification and verification testing and data review. For example, does the last sentence mean that EPA is not at this time allowing TVs to be tested with MDD selected?

We recommend EPA provide more detailed guidance in the final versions of its cover letter and specification and we provide the following options for EPA's consideration. Barring the production of any new compelling data on the power use of MDD on new TVs, we recommend selecting the first one.

1. Do not allow MDD to be on during testing as the savings from this feature appear unreliable and not sufficiently understood.

Given the lack of sufficient data on how much energy MDD actually saves when real world content is played, we feel it's premature to allow manufacturers to continue to claim savings from this feature. We therefore recommend: a) EPA require this feature be disabled prior to and during the on-mode power test, and b) EPA work with stakeholders to gather additional data on this feature and to revisit this topic in Version 9.

2. Allow MDD to be on during the test if it is shipped enabled but cap the

claimed savings to 5 Watts.

We saw a very wide range of power savings from MDD on various TVs. Most were relatively small and some were suspiciously high. Given the absence of more data, and EPA and stakeholders joint goal of finalizing Version 8 ASAP in time to positively influence the design of new TVs brought to the market in 2018, we recommend allowing manufacturers to claim some savings for this feature but to limit it at this time. To operationalize this option, EPA would: a) require the manufacturer to test their TV with the IEC test clip with MDD on and then with MDD off and, b) allow the manufacturer to claim credit for the actual savings between these two tests, with a cap of 5 W. This option has the benefit of avoiding the need to gather alternate content, test its power use, and undergo some review of the results by EPA.

3. Develop an approval process whereby the manufacturer would need to first submit test data on specific real world content to demonstrate the validity of the claimed savings.

Per this recommendation, manufacturers would need to first demonstrate to EPA that their implementation of MDD actually saves roughly equivalent amounts of energy during real world viewing. In order to test their TVs with MDD enabled, manufacturers would need to receive confirmation from EPA that the supplemental testing they did yields similar savings to those observed when the IEC test clip is played. Our proposal is to: a) add text that requires manufacturers to submit the results of supplemental on-mode power testing on various real world test clips (test IEC clip with MDD on and with it off; and perform same two tests with alternate content), an explanation of what the test clips were, and why they were selected, and b) require EPA to review and approve the submission in order for the manufacturer to test their TV with MDD enabled.

4. Require manufacturers to submit supplemental testing data and information on real world test clips in order to test and qualify their TVs with MDD enabled.

In the event EPA is not comfortable with any of the options listed above, then at a minimum we feel it should be compulsory for manufacturers to produce additional data as part of their qualification submission. This data -- performance of on-mode power testing with MDD enabled and disabled with the IEC test clip, and then with alternate content; and description of this content -- should be part of the public record and available for review by interested stakeholders and will also ensure EPA has sufficient data to inform its Version 9 revision. This data could also be referenced during verification testing and used in support of product decertification efforts if gross anomalies are observed.

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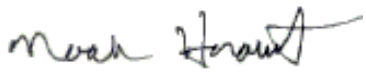
We appreciate all of EPA's efforts to revise the ENERGY STAR specification for TVs and remove current loopholes that might exist, and the opportunity to provide feedback. Please do not hesitate to contact me at 415-875-6100 if you have any questions regarding our comments.

Sincerely,



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