

**Before the
United States Department of Energy
Washington, D.C. 20585**

In the Matter of:

Energy Efficiency Program: Test Procedure for Televisions;
Request for Information

Docket No. EERE-2016-BT-
TP-0023;

RIN 1904-AD70

EX PARTE REPLY COMMENTS OF LG ELECTRONICS USA

In response to its Request for Information on test procedures for televisions, the Department received a fair amount of both opinion and data from a variety of parties. There was, however, less effort to connect that opinion and data with the applicable law.

The Secretary of Energy's authority to prescribe procedures for testing the energy efficiency of televisions stems, of course, from the Energy Policy and Conservation Act (EPCA).¹ The statute provides rather strict criteria for any test procedures that are adopted. It requires that all test procedures "shall be reasonably designed to produce test results which measure energy efficiency ... during a representative average use cycle or period of use, as determined by the Secretary, and shall not be unduly burdensome to conduct."²

Thus, any test procedure adopted under EPCA must test "a representative average use cycle or period of use." And it is here that certain of the comments, including those of the Natural Resources Defense Council (NRDC),³ go awry. NRDC, both in its comments and a

¹ 42 U.S.C. § 6291 *et seq.*

² *Id.* § 6293(b)(3).

³ *See also* California Investor Owned Utilities (CA IOUs) at 2-5; Northwest Energy Efficiency Alliance (NEEA) at 10-11.

subsequent public report (Report)⁴, has allowed itself to become unmoored from the statute that is the basis for the adoption of an energy efficiency test procedure for televisions.

Many manufacturers, including LG Electronics, arrange for the default settings when televisions leave the warehouse to include features designed to provide what the manufacturers believe is an optimal viewing experience *and* to save energy.⁵ These features include Automatic Brightness Control (ABC) and Motion Eye Care (MEC).⁶ These manufacturers, including LG, also allow consumers – if they desire – to change the default settings. In some cases, changing the default settings deactivates ABC or MEC.⁷

First, in its Comment and later in its Report, NRDC asks why – if they are useful – manufacturers would disable features such as ABC or MEC when the consumer changes the default settings.⁸ The answer is pretty simple. Not all consumers view the same content or prefer the same picture. Some viewers prefer a brighter picture even at the cost of additional energy use. As NRDC admits, “TV in Vivid or Dynamic mode provides an extremely bright screen all the time....”⁹ Some consumers (perhaps those of us whose vision may not be as acute) like viewing a screen that others would consider too bright or too vivid. Many TV manufacturers, including LG Electronics, set defaults to provide the picture they believe most viewers would want most of the time and to save energy in so doing. But they also allow viewers to alter the settings to select the picture they would prefer, and some of those settings are

⁴ NRDC, Report R-16-09-8 (Sept. 2016).

⁵ NRDC at 3-4, 9.

⁶ LG’s feature is called MEC. Samsung’s similar feature is called Motion Lighting (ML). For convenience, LG generally refers herein to such features collectively as MEC.

⁷ NRDC at 9.

⁸ *Id.* at 12; NRDC Report at 8.

⁹ NRDC at 12.

not consistent with the energy-saving features. While NRDC would prefer that viewers not select a “vivid” or “dynamic” screen,¹⁰ even it would have to admit that some viewers are willing to use more energy to have a brighter picture.

Having said that, how the defaults are configured is not static. LG is constantly fine-tuning its settings both to save energy and to provide viewers with the picture they prefer. This year, LG implemented software updates on 2015 and 2016 models to provide on-screen notifications to inform consumers that changing picture modes may affect energy consumption, and to allow consumers to turn on energy-saving features in various picture modes. Beginning with its 2017 models, LG plans to implement further enhancements to the ABC and MEC energy-saving features. It will also provide on-screen notifications about the energy impact of disabling these features. And, LG already provides consumers who have changed the settings the opportunity to return to the default mode. LG’s goal is to provide a great viewing experience, while allowing consumer choice and encouraging energy efficiency.

Second, NRDC suggests that, since energy-saving features can be disabled, “in real life power use would be considerably higher.”¹¹ It is truism, of course, that a television will use more energy with the energy-saving mechanisms turned off. But all of the evidence in the record suggests that *most people do not change the defaults*.¹² The studies cited by CA IOU and NEEA

¹⁰ *Id.* at 27.

¹¹ *Id.* at 9.

¹² LG at 3-4; Consumer Technology Association at 6; Samsung at 2. Samsung states that approximately 60% of consumers stay within the default viewing settings through the lifetime of their television. And, some of the remaining 40% make adjustments that do not include turning off Motion Lighting. CA IOUs asserts (at 3) that TVs “are not being viewed in the as-shipped settings,” but the studies they cite, namely 3M and CBS Vision, indicate that *more than half do not change defaults*. NEEA (at 10-11) also cites the 3M study, but then tries to push the non-default number higher by saying that some people might, *e.g.*, accidentally change the default. NEEA then speculates limply that this “suggest[s]” that it would be “reasonable to assume” at least half of all TVs in use in the U.S. spend “significant amounts of time” using more energy than the DOE testing at the default settings. None of this provides a basis for testing other than at the default settings.

show that most people do not change their defaults.¹³ And even the NRDC Report “assume[s] energy-saving features are disabled for one-third of all TVs.”¹⁴

In other words, the record indicates that most people do not turn off the energy-saving mechanisms. To use NRDC’s phrase then, “in real life” the power usage would be precisely what it would be in the default mode – not what it is with the defaults changed. Moreover, even if more than half of consumers changed from the default setting (which is not the case), that would still not disqualify the default as the representative use cycle. Not only can users change back to the default, there are so many potential non-default settings for a consumer to choose that none of them would be representative.

Ultimately, based on the faulty premise that the default settings do not accurately measure typical energy use, NRDC argues that it is not sufficient to test televisions in the default mode. It suggests, perhaps, two tests. One would be in default mode¹⁵ and the other in the “most power consumptive state.”¹⁶ NRDC would then let multiple federal agencies argue over which test should count more in which situation. Simply put, this proposal would not be lawful under EPCA – and surely not on the present record. There is, literally, no evidence that the “most power consumptive state” is “a representative average use cycle.” Indeed, all of the evidence in the record is to the contrary.

¹³ *Id.*

¹⁴ NRDC Report at 29, App. I.

¹⁵ NRDC at 12. NRDC (at 12-13) would also prohibit any text or messaging “encouraging the user” to change the defaults if the default mode was to be tested. LG could potentially agree to such a formulation – except that in other contexts NRDC has taken the position that giving the consumer a choice is tantamount to “encouragement.” LG believes in consumer choice and does not believe merely providing options constitutes encouragement. If this does constitute encouragement, LG cannot accept this proposed approach.

¹⁶ *Id.* at 13.

The truth is that despite the criticism by NRDC and a handful of others, DOE has had it right all along. The default settings *are* the representative average cycles – and the Secretary only has the authority to test such “average” use. Thus, all testing must be done in the default mode. Finally, having “policy makers” in various agencies weight the results of the multiple test procedures on a case-by-case basis, as NRDC suggests, would turn an objective, consistent, and repeatable test procedure into a subjective and random procedure – one that would be unlawful and would not actually allow TV shoppers to compare energy usage among models or brands. Such a result would undermine the whole purpose of DOE’s testing regime.

Third, NRDC claims that the video clip used in the DOE test procedure also does not reflect the “real world” because it believes the video clip content is not reflective of what consumers watch. To make its point, NRDC produced its own supposedly “real world” test clip and, to no one’s surprise, NRDC got different results with its video clip than with the DOE video clip. But the basis for NRDC’s claim that its test clip better reflects the “real world” than the DOE clip is murky at best. There is even less support for NRDC’s half-hearted but well-publicized claim that the DOE video clip could be taken advantage of by manufacturers.¹⁷ The truth is that the video clip mandated by DOE for use in testing was not found lying in the street or selected randomly. DOE chose the well-recognized International Electrotechnical Commission (IEC) test clip. IEC is merely the world’s leading organization for the preparation and publication of consensus-based international standards for electrical, electronic, and related technologies.

¹⁷ NRDC Report at 15, 18.

The NRDC Report also urges changing the test clip to reflect UHD + HDR movies.¹⁸ But NRDC acknowledges that “HDR is still in its infancy.”¹⁹ Thus, it cannot be used in a test procedure that must reflect “a representative average use cycle or period of use.”²⁰ Having said that, LG is always open to developing a newer and better test clip. It would be happy to work with DOE, NRDC, and others in developing such a clip. LG simply objects to the untested assertions by NRDC that it has a special understanding of the content viewed by consumers, that the current test clip does not reflect the “real world,” and that DOE and manufacturers could be somehow misleading consumers by using this widely-accepted clip.

* * *

The bottom line is that the Department of Energy has done a good job developing test procedures accurately to measure the energy usage of televisions. This is not to say improvements cannot be made. But the suggestions advanced by NRDC are generally without factual support, and not consistent with the law.

Respectfully submitted,



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¹⁸ *Id.* at 6.

¹⁹ *Id.* at 28.

²⁰ 42 U.S.C. § 6293(b)(3).