

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



OFFICE OF  
AIR AND RADIATION

March 10, 2017

Dear ENERGY STAR® TV Partner or Other Interested Stakeholder:

The U.S. Environmental Protection Agency (EPA) welcomes your input on the following Draft 1 Version 8.0 ENERGY STAR TV specification. This draft communicates a set of proposals that the Agency believes will address concerns with certification of ENERGY STAR TVs under Version 7.0.

With Version 8.0, EPA is proposing changes to ensure that TVs deliver energy savings along with a positive viewing experience for consumers. One common feature for providing savings, Automatic Brightness Control (ABC), adjusts screen luminance to accommodate shifts in room brightness, demonstrating a reduced power draw in lower-light environments. For several years, EPA has incentivized ABC in the TV specification to encourage its adoption. More recently, EPA learned that TVs qualifying with ABC enabled in the Default Picture Setting often disable ABC in many other preset picture settings, thereby reducing the actual savings that consumers realize. EPA has also learned that other features, including some not detectable by the viewer, can increase the energy use of TVs beyond their tested value. As such, EPA has developed proposals for performance and persistence of ABC and a proposal for consumer alerts regarding increased energy use. A summary of the proposed changes reflected in this Draft 1 is provided below. EPA is striving to complete this revision such that it takes effect in alignment with the 2018 model year.

Draft 1 Version 8.0 includes the following proposed changes:

**Automatic Brightness Control (ABC):** EPA proposes that, to qualify for ENERGY STAR, TVs with up to four Preset Picture Settings are permitted to have only one Preset Picture Setting without ABC enabled by default and TVs with more than four Preset Picture Settings are permitted no more than two Preset Picture Settings without ABC enabled by default. TVs that meet this requirement would be permitted to qualify with ABC enabled by default. EPA considers that this proposed approach both encourages the persistence of quality implementations of ABC while recognizing that in a limited number of Preset Picture Settings, implementing ABC is not viable. Additionally, to ensure that ABC implementation does not result in a screen that is too dim, EPA proposes requiring that the average luminance at 3, 12, 35, and 100 lux with ABC enabled be greater than or equal to 50% of the TV's luminance in the Brightest Selectable Preset Picture Setting and that the luminance at 3 lux in the Default Picture Setting, with ABC enabled, is greater than or equal to 150 nits ( $\text{cd/m}^2$ ) as recommended by the Imaging Science Foundation for dark room viewing.

**Alerting Changes in Power Consumption:** EPA proposes that ENERGY STAR certified TVs alert consumers that energy consumption will increase when selecting a Preset Picture Setting without ABC enabled by default or when activating a more energy consuming feature.

**Additional Energy Saving Features:** EPA has added language to the specification prohibiting certification of TVs as ENERGY STAR if they have enabled energy saving features during testing with the IEC test clip that do not offer comparable savings when tested with content that reflects a variety of typical viewing experiences.

**High Dynamic Range (HDR):** As HDR becomes a more prominent feature in TVs, EPA proposes additional testing and reporting requirements to improve public understanding of the effect of HDR upscaling on energy use in the default Preset Picture Setting and the power consumption of the HDR pre-set picture setting.

**Scope:** EPA proposes to expand the scope of the ENERGY STAR TV specification to include Home Theater Displays, which support TV viewing through streaming rather than via a tuner. EPA is proposing this change based on input from Television Partners that numerous future products, including high-volume products, will be shipping without a tuner.

**TV Webinar to Discuss Draft 1: On Monday, March 20, 2017, from 1 pm–3:30 pm, Eastern Time,** EPA will host a stakeholder webinar to present details on the Draft 1 Version 8.0 ENERGY STAR TV specification and address stakeholder questions and concerns. If you wish to attend this meeting, please register [here](#).

**Stakeholders are requested to provide comments on the Draft 1 specification no later than Wednesday, April 5, 2017. Please send comments via e-mail [televisions@energystar.gov](mailto:televisions@energystar.gov).** All comments received will be posted to the ENERGY STAR Product Development Web site, unless the submitter specifically requests that his or her comments remain confidential. The exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. To track EPA's progress in revising the ENERGY STAR TV product specification and to review comments, please visit the Product Development Web site at [www.energystar.gov/RevisedSpecs](http://www.energystar.gov/RevisedSpecs) and click on "Televisions."

Thank you for taking the time to review this draft specification. Please contact me at [Radulovic.verena@epa.gov](mailto:Radulovic.verena@epa.gov) or (202) 343-9845, or Emmy Feldman at ICF at [Emmy.Feldman@icf.com](mailto:Emmy.Feldman@icf.com) or (202) 862-1145, with any questions or concerns.

Best Regards,



Verena Radulovic, Manager  
ENERGY STAR for Consumer Electronics

Enclosures:

Draft 1 Version 8.0 ENERGY STAR TV Products Specification  
Comment Response Document on Version 8.0 Launch Letter and Webinar