

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



OFFICE OF  
AIR AND RADIATION

May 30, 2013

Dear Set-top Box Equipment Manufacturer, Service Provider or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) welcomes your feedback on this Draft 2 ENERGY STAR Version 4.1 specification for set-top boxes (STBs). As a reminder, Version 4.1 will reflect refinements to the formerly finalized Version 4.0 requirements based on the market's evolution since the development of Version 4.0. Version 3.0 requirements will remain effective until Version 4.1 is completed and effective.

While the previously finalized Version 4.0 requirements remain largely relevant, EPA does see value in refining our multi-room allowances and expanding the menu of home networking capabilities and allowances in light of the development of the market in these areas.

This draft reflects careful consideration of comments received on Draft 1 and includes the following proposed revisions. Further, this draft reflects EPA's and the Department of Energy's (DOE) commitment to work together to harmonize testing conducted for set-top boxes. Accompanying this draft specification is a matrix providing responses to comments received on Draft 1. All Draft 1 comments are posted at [energystar.gov/products/specs/node/151](http://energystar.gov/products/specs/node/151).

**Definitions:**

- **Displayless Gateways:** EPA has revised the definition of Displayless Video Gateway, highlighting that the difference between STB and Displayless Video Gateway.
- **Ultra HD, High Efficiency Video Processing and 3D Capability:** EPA has added definitions for Ultra HD, High Efficiency Video Processing, and 3D Capability; EPA may consider reasonable allowances in a future STB specification once performance data for these functionalities become available.
- **Home Network Functionality:** With the intention of enabling the qualification of Displayless Video Gateways, EPA has provided new definitions for home network functionality, as well as allowances, based on those in the Version 1.0 ENERGY STAR Small Networking Equipment specification.
- **Deep Sleep State:** EPA has revised the definition of Deep Sleep State so that it covers any state that provides additional energy savings over that which is measured by the Sleep Mode test in Section 5.6 of the DOE NOPR. 78 FR 5076.
- **Basic Model:** EPA and DOE worked together to develop a solution specific to concerns regarding the basic model definition. This draft references the previously used Product Family definition. DOE and EPA remain committed to harmonizing all aspects of set-top box test procedures and

EPA intends to migrate the ENERGYSTAR specification to the basic model approach once DOE finalizes the DOE test procedure.

**Scope:**

- **Cable DTAs:** EPA has re-instated Cable DTAs within the scope of Version 4.1 ENERGY STAR specification.

**Qualification Criteria:**

- **Base Allowances and Adders:** EPA has adjusted numerous base allowances and functional adders in combination such that the proposed requirements recognize top performers among those currently on the market, while more effectively taking into account higher functionality boxes..
- **Thin Clients:** EPA has increased the Thin-client/Remote base allowance from 10 kWh to 15 kWh. The 15 kWh base allowance is within reach of currently-qualified Thin-client STBs if they Auto-power Down to 1.5 W, which EPA expects to be more common with MoCA 2.0.
- **Deep Sleep State:** EPA has modified the Deep Sleep incentive in Draft 2 such that it applies only to Deep Sleep States separate from the Sleep Mode measured by the DOE NOPR.
  - EPA has limited the Deep Sleep Incentive such that it no longer applies to Thin-client/Remote STBs or Over-the-top IP STBs, which already reach low power levels.
  - With the goal of increasing flexibility, EPA has allowed for activation of Deep Sleep State through a timer or network command.
  - EPA has added two additional requirements ensuring that Deep Sleep is compatible with user-scheduled recording and other functions to encourage the use of Deep Sleep.
  - DOE and EPA worked together to develop a scheduled sleep test for the purposes of qualification of Deep Sleep.

EPA will host a webinar to discuss this Draft 2 specification on June 17, 2013, from **12-2:30 Eastern Time**. Please RSVP by emailing [stbs@energystar.gov](mailto:stbs@energystar.gov) by Thursday, June 13. Call-in capability will be provided. Please submit comments on this Draft 2 specification to [stbs@energystar.gov](mailto:stbs@energystar.gov) by **June 26, 2013**.

On behalf of EPA, I appreciate your participation in this effort. The exchange of ideas and information between EPA, product manufacturers, and other interested parties is critical to our success. If you know of others who may be interested in participating in this effort, please forward this announcement and encourage them to send their contact information to [stbs@energystar.gov](mailto:stbs@energystar.gov) to be added to the stakeholder contact list.

Please direct any specific questions to Katharine Kaplan, at [kaplan.katharine@epa.gov](mailto:kaplan.katharine@epa.gov), or 202-343-9120, or Matt Malinowski, ICF International, at [matt.malinowski@icfi.com](mailto:matt.malinowski@icfi.com) or 202-862-2693. Please direct any questions regarding ENERGY STAR testing of set-top boxes to Jeremy Dommu, DOE, at [jeremy.dommu@ee.doe.gov](mailto:jeremy.dommu@ee.doe.gov) or 202-586-9870.

Sincerely,



Katharine Kaplan  
Manager, ENERGY STAR Product Development and Program Administration