

September 10, 2013

Ms. Katharine Kaplan  
ENERGY STAR Set-Top Box Program  
U.S. Environmental Protection Agency  
1310 L Street, NW  
Washington, DC

Subject: DIRECTV Comments on ENERGY STAR® Version 4.1 STB Proposal Memo dated 8/29/13

Dear Katharine:

DIRECTV applauds EPA's efforts to continue with the ENERGY STAR Version 4.1 Set-top Box Specification revision in the face of uncertainties (e.g. DOE actions) this year. We also appreciate your taking steps to ensure that recently introduced, state-of-the-art energy efficient products such as DIRECTV's Genie servers and clients have the opportunity to be qualified once Version 4.1 becomes effective. Our comments on the Proposal Memo follow:

**EPA's Dataset:** While we still believe that this approach has flaws, the result of this revised analysis using a corrected dataset is satisfactory inasmuch as the target base allowances are more realistic. These base levels more closely reflect the energy contribution attributable to Advanced Video Processing and High Definition capabilities.

**Additional Functionality Allowance (UltraHD):** DIRECTV appreciates the inclusion of an allowance for this technology which is expected to appear in STBs during the Version 4.1 timeframe. The EPA should recognize, however, that a value of 20 kWh/yr suffices only to address the higher picture resolutions and frame rates of UltraHD. The use of High Efficiency Video Processing (HEVP) for delivery of the UltraHD video content, having significantly more complex processing demands for decompression, warrant a separate HEVP allowance...just as has been included in the European STB Voluntary Agreement.

**Additional Functionality Allowance (HNI):** An increase in the Home Network Interface allowance to 15 kWh/yr combines with the revised base allowance for thin clients to make an achievable overall target for thin clients. However, EPA hasn't proposed a corresponding adjustment to the multi-room allowance for a server. Remembering that the HNI allowance itself cannot be taken on the server, but is "proxied" within the multi-room allowance, an additional 5 kWh/yr should be added to the multi-room allowance as well. Furthermore, we ask EPA once again to consider the impact of multiple Home Network Interfaces (e.g., MoCA and wireless) operating simultaneously on a Server.

**Deep Sleep Incentive:** DIRECTV supports the EPA's continued efforts to incentivize deployments of Deep Sleep functionality without making this very complex feature a prerequisite for ENERGY STAR qualification. We must reiterate, however, that being too prescriptive (for example, predefining the exact hours for implementation of deep sleep) introduces a risk of unintended constraints on system implementation. It would be more practical to keep it simple, e.g. defining a default time period as was done for the APD feature. Similarly, attempts to prescribe limits on customers' control over these features can lead to bad customer experiences when a more innovative solution may become available.

**Other topics not mentioned in this Memo:** During the Draft 2 discussion, an error was discovered in which the Router and Access Point allowances cannot be used together for a server. We would appreciate confirmation that this will be corrected in the Version 4.1 Final Draft. In addition, the topic of transcoding has not yet been addressed by EPA in its communications to stakeholders. DIRECTV supports having an allowance of 13 kWh/yr for STBs with transcoding functionality, and a further allowance of 5 kWh/yr for each parallel transcoding function that the STB performs.

We thank the EPA for this update, and look forward to the September 16<sup>th</sup> phone call with stakeholders.

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