

March 23, 2010

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ENERGY STAR Set-Top Box Program
U.S. Environmental Protection Agency
1310 L Street, NW
Washington, DC 20460

Subject: Draft 1 Version 3.0 ENERGY STAR® Set-top Box Specification Supplemental
Comments from DIRECTV

Dear Kathleen:

Based on discussions and presentations made at the March 19 Stakeholders meeting, DIRECTV would like to offer a few additional comments regarding the Draft 1 Version 3.0 ENERGY STAR® Set-top Box specification released on February 23, 2010. DIRECTV comments on the newly introduced Version 3.0 Tier 2 proposal will be submitted separately, before the EPA's April 9 deadline announced earlier today.

Data Submission on DIRECTV C30 Thin Client / Remote STB

At the March 19 meeting, the EPA emphasized how important it was for stakeholders to make data available wherever possible to help with the guideline development process. Recently, DIRECTV performed preliminary measurements on a single production prototype of its upcoming DIRECTV C30 thin client STB, planned for release in late 2010. The DIRECTV C30 thin client STB has High Definition outputs and includes both Advanced MPEG4 Video Processing and an advanced MoCA Home Network Interface. The result for this single prototype is as follows:

$$P_{tv}(W) = 10.20$$

$$P_{sleep}(W) = 7.25$$

$$TEC (kWh/yr) = 78.58$$

The measured TEC value of the prototype DIRECTV C30 is 67% higher than the Draft 1 Version 3.0 Tier 1 value of 47 kWh/yr (= base allowance of 22 kWh/year + High Definition allowance of 25 kWh/year). If Advanced Video Processing (12 kWh/year) and Home Network Interface (10 kWh/year) were included in the Thin Client / Remote STB base allowance (as has been done for Cable and Satellite STBs), then the TEC value would be 69 kWh/year for this prototype. In this case, the measured TEC, while not compliant, would be 14% higher than the corrected Energy Star guideline.

This data clearly shows that Thin Client / Remote STBs need an allowance that accounts for advanced video processing and home network interfaces.

Data Submission on DIRECTV HMC30 Multiroom STB

At this same time, DIRECTV performed preliminary measurements on a production prototype of its upcoming DIRECTV HMC30 multi-room STB, also planned for release in late 2010 and having HD outputs, MPEG4 and MoCA. The result for this prototype is:

$$P_{tv}(W) = 26.34$$

$$P_{sleep}(W) = 25.31$$

$$TEC (kWh/yr) = 226.98$$

The prototype DIRECTV HMC30 is also not compliant with Draft 1 Version 3.0 Tier 1, having a measured TEC value 24% higher than the target of 183 kWh/yr (= base of 72 kWh/year plus 25 for HD, 16 for Additional Tuner, 45 for DVR and 25 for Multi-room).

Allowance for Replaceable Conditional Access Functionality

The EPA explains in its cover letter of February 23 that it “aligned the base allowance for Satellite STBs with the base allowance for Cable STBs”. By setting the base allowance for Satellite STBs to be the same as for Cable STBs, however, it effectively eliminated from Satellite STBs the allowance for the smart card based conditional access used by satellite service operators. In the same way that the CableCard based conditional access used by cable operators was not removed from the Version 3.0 Tier 1 specification, an allowance must remain in place for the smart card based conditional access used by satellite service operators.

A simple way to address this inequity would be for the additional functionality currently called “CableCard” to be renamed “Replaceable Conditional Access” and be applicable for both Cable STBs and Satellite STBs. In this way the allowances for Satellite STBs and Cable STBs would truly be aligned, as was the EPA’s intention.

Sincerely,

Steve Dulac
Director, Engineering