



March 2, 2016

Ms. Katharine Kaplan
Manager, ENERGY STAR Product Development
& Program Administration
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., N.W.
Washington, DC 20460

**Re: ENERGY STAR Version 5.0 Set-Top Box Specification
and Test Method – Draft 2**

Dear Ms. Kaplan:

ARRIS Group, Inc. (“ARRIS”) welcomes the opportunity to comment on Draft 2 of the ENERGY STAR Version 5.0 Set-Top Box (“STB”) Specification¹ and provides below suggestions related to the Specification.

1) Sleep Mode, Deep Sleep State and Scheduled Sleep Mode (Lines 97-108)

EPA’s proposed requirements in Section 1 F (Operational Modes) are not consistent with the way current technology operates. EPA is proposing a new sleep mode known as “Scheduled Sleep Mode” in addition to the already existing mode known as “Deep Sleep State.” These two modes appear to be identical in terms of the level of power savings achievable, with the only difference being how the unit enters these modes (button push vs. set schedule). As such, ARRIS believes there is no valid basis for requiring a transition time of less than 30 seconds to On Mode for “Deep Sleep State” while allowing a transition time greater than 30 seconds to On Mode for the almost identical “Scheduled Sleep Mode.”

It is misleading to leave “Deep Sleep State” under the category of “Sleep Mode” and state that “Scheduled Sleep Mode” achieves “additional energy savings beyond that offered by Sleep Mode,” because this implies that “Scheduled Sleep Mode” is somehow able to achieve a power reduction greater than the “power draw less than or equal to 1 W” for “Deep Sleep State.” At the fundamental level, these modes are identical and as a result should both allow the same wake up time. In order for a unit to achieve such low power levels as required under these two states, it must shut down nearly all functions, and it can take significant time to wake up and return to normal operation.

ARRIS proposes that EPA either (i) clarify in lines 104-105 that “Deep Sleep State” does not require a wake up time of less than 30 seconds or (ii) include “Deep Sleep State” in the

¹ See Letter from Katharine Kaplan, Manager, ENERGY STAR Product Development and Program Administration (November 16, 2015); ENERGY STAR Product Specification for Set-top Boxes, Eligibility Criteria, Draft 1 Version 5.0 (“Draft 2 Specification”).

definition of “Scheduled Sleep State,” which would also remove the 30 second wake up time requirement.

2) Base Type TEC Allowance Thin-client / Remote (Section 3.3 Table 2)

ARRIS supports the proposals to minimize the energy consumed while products are not performing their main function. However, the proposed TEC allowance reduction from 30 kWh/year to 7 kWh/year for thin clients cannot be supported with current or imminently-available technology. The proposed delay in implementation to January 1, 2018 does not give enough time for new products to be developed and introduced. Given that typical time frames for VLSI development such as this take 18 + months, this would result in thin clients being withdrawn from the Energy Star program in 2018, giving the impression to outsiders that the server/client model is not energy efficient. We would therefore propose the allowance remains at the current value, in line with the other base allowances, until January 1, 2019, and that the allowance be reduced to 10 kWh/year beginning on that date. This will allow sufficient time for the fundamental redesign of both the hardware and software of the thin clients that will be required.

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ARRIS appreciates this opportunity to comment and looks forward to further discussions with EPA about the Draft 2 Specification. Please contact me if you have any questions regarding this matter.

Sincerely,

/s/ Jason E. Friedrich
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& Regulatory Affairs
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