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October 21, 2010

Via email: STBs@energystar.gov

Ms. Katharine Kaplan
U.S. Environmental Protection Agency
ENERGY STAR for Set-Top Boxes
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

Re: Proposed Edits to Draft 2 Version 3.0 ENERGY STAR Program Requirements for Cable, Satellite, and Telecom Service Providers

Dear Ms. Kaplan:

AT&T welcomes the opportunity to submit these comments on the second draft of ENERGY STAR's Versions 3.0 and 4.0 specifications for set-top boxes (STBs), released September 21, 2010. AT&T commends ENERGY STAR's commitment to driving rational improvements to energy consumption for set-top boxes and its understanding that a focus on whole-home energy consumption is critical as consumer devices become increasingly networked and perform multiple functions. In these comments, AT&T focuses on two points:

- AT&T has aggressively pursued all efficiency options for its set top boxes but continues to request a modest increase of 6Kwh/yr to the base allowance for the non-DVR unit target to account for uncertainties in the testing process and to ensure that its products remain ENERGY STAR compliant.

- In future iterations, AT&T suggests that ENERGY STAR's incentives and rules should focus broadly on how multiple services may be most efficiently delivered to customers, rather than focusing solely on individual devices within the home. This broader focus will allow the program to accommodate dramatic architecture innovations that will significantly reduce energy consumption throughout the home.

Proposed Adjustments to IPTV Non-DVR Unit Targets

As a company, AT&T is dedicated to driving sustainability and energy efficiency both in our products and in our own operations. As evidence of this dedication, AT&T's full product line has been ENERGY STAR compliant for the entire period the company has participated in the program. This record is extremely important to AT&T. We are eager to maintain the 100% compliance level, even if the rules technically allow ENERGY STAR Service Provider status to be retained with the distribution of limited numbers of non-compliant devices. Consequently, as we have previously requested, AT&T urges ENERGY STAR to increase the base allowance for non-DVR unit by 6 Kwh/yr (from 45 to 51 kWh/yr) or to provide other adder adjustments that will yield an as-deployed target of 106 kWh/yr for AT&T's non-DVR unit. The proposed adjustment is small but critical to AT&T's ability to continue participating in ENERGY STAR's STB program.

AT&T acknowledges that this proposed target is slightly higher than the expected consumption figure, which we previously discussed with the EPA, of 99kWh/yr for the non-DVR unit. The lower figure was based on preliminary testing data of prototypes by AT&T's equipment manufacturers and did not include any safety margin for individual component variation. However, because the qualification target is a bright line maximum (rather than an average around which minor variation is permitted) the allowed margin between expected consumption and the target must be sufficient to account for variations in components and the production process. The current target provides a margin for error of only 1 Kwh/yr. This is insufficient and creates a high risk that AT&T will not be able to continue to achieve its ENERGY STAR Service Provider status – a level it has achieved since the initiation of the set top box program. AT&T submits that a reasonable margin is particularly warranted here, given the stringent, one-strike testing rule, under which a provider is disqualified if one out of three pieces of equipment fails to meet the target.

The consumption figure of 99 kWh/yr includes all energy efficiency gains feasible within the technology platform being deployed for the period when the Version 3.0 targets will apply. As noted in our August 22, 2010, letter, AT&T has already aggressively assumed a 15% reduction in energy use resulting from the inclusion of more efficient power regulators. AT&T has no other viable technological options to achieve additional efficiencies without adversely affecting the customer experience.

Even after the minor proposed upward adjustment, AT&T's IP STBs will remain among the most energy efficient options available to consumers. The adjustment will further encourage deployment of configurations that are energy efficient from the household perspective, avoiding the incentive for AT&T to deploy multiple (more consumptive) DVR boxes in a single household simply because they meet the applicable ENERGY STAR target.[1]

Longer Term Considerations: Version 4.0 and the Future

Converging Devices: As the ENERGY STAR program moves forward, the drive to energy efficiency will likely need to shift from a focus on individual devices and begin to recognize the changing nature of how services may be delivered to consumers. Households are moving to a LAN environment in which many devices can interact and functionality for various devices is strategically located in a centralized device – for example, entertainment, home security and home energy management appear poised to migrate onto a single household gateway. Thus a device may consume power unrelated to the specific purpose being evaluated (*e.g.*, for security rather than for set top box functionality). Yet this multi-function device may well be significantly more energy efficient than having numerous stand-alone devices. This development, which is not that far in the future, will make it problematic to evaluate ENERGY STAR qualification based solely on individual device energy efficiency. Rather, it will become critical that some larger, aggregated measure be the standard for ENERGY STAR evaluation. If consumption targets/allowances for components are not carefully balanced, deployment of truly innovative and energy-efficient platforms could be delayed. In the extreme, unintended incentives could be created to deploy less efficient configurations involving unnecessary or less efficient devices.

As discussed with the EPA in the October conference call, consumer devices typically have a 5 to 7 year life and, as a result, sensible design dictates that functionality be present that may not initially be useful but which has the potential for game changing impacts on consumers' lives and/or energy consumption.[2] Adaptability will require interfaces that may consume power that is not immediately used for the specific purpose associated with a STB.[3] Enabling and

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[1] AT&T has examined the multipliers in the latest ENERGY STAR release, but, as currently configured, they do not help us to qualify. AT&T cannot achieve deep sleep functionality at this point without adversely affecting its customers' experience, and our non-DVR boxes do not qualify as thin clients.

[2] Some functionality could increase power consumption in the short term but encourage energy efficiency in the long term. By deploying a WiFi interface early, it becomes practical for consumers to self-install devices that interact with a centralized device. Shared functionality is a proven energy efficiency strategy. Self-installation reduces consumer cost and encourages more rapid adoption of such configurations.

[3] For example, a home LAN may support both entertainment services and remote medical monitoring. While it may be highly desirable to maximize home entertainment energy efficiency that objective may need to be balanced with a competing policy objective of expanding home-based health care and reducing overall health care costs.

encouraging Service Providers to deploy such capabilities early accelerates innovation and adoption of new functionality. ENERGY STAR targets should be crafted in a manner that does not inhibit such innovation and risk taking that can significantly advance energy conservation or help meet other equally important policy goals of the country.

Process Considerations: The collaborative approach that ENERGY STAR takes with the industry allows difficult problems to be addressed and meaningful progress to be made toward energy reduction goals. It is important that ENERGY STAR continue to pursue its highly collaborative approach and demonstrate an even greater degree of flexibility in the consideration of Version 4.0 targets.

But flexibility alone will not be sufficient to meet the needs of the marketplace. A speedier update and revision process is required that, in particular, recognizes that the set top box market is highly competitive. The current standard setting process is a lengthy one and may necessitate early disclosure of planned functionality in order to achieve ENERGY STAR certification. This may be problematic, because no provider will want to provide advance notice of planned functionality to other competitors. A process for providing adders for new functionality, without going through the current draft and review cycle is needed to stimulate innovation and participation in the ENERGY STAR program without compromising competitive first mover advantages. WiFi and G.hn interfaces would provide a good opportunity to prototype an expedited interface adder process. As customers demand new connectivity and additional flexibility in the placement and use of entertainment devices, the Service Provider needs to be able to meet those demands promptly without spending the time to seek extensive rule changes.

AT&T appreciates the opportunity to provide these comments and looks forward to working with the EPA on these important issues.

Sincerely,

Cecilia M. Martaus

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