



Keith M. Krom  
Vice President & General Counsel  
- Washington  
AT&T Services, Inc.  
1133 21<sup>st</sup> Street NW  
Suite 900  
Washington, DC 20036

T: 202-463-4148  
F: 202-463-8066  
M: 202-431-6550  
kk1643@att.com

CORRECTED VERSION: August 27, 2010

Via email: [STBs@energystar.gov](mailto: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 Version 3.0 and 4.0 ENERGY STAR Program  
Requirements for Cable, Satellite, and Telecom Service Providers  
Stakeholder Conference Call July 7, 2010

Dear Ms. Kaplan:

AT&T welcomes this opportunity to submit comments on proposed edits to Versions 3.0 and 4.0 of the ENERGY STAR requirements for set-top boxes (STBs), following the conference call that staff of the Environmental Protection Agency (EPA) conducted on July 7, 2010. We submit these comments in response both to the issues discussed on the call and to the Discussion Guide that EPA staff issued shortly before the call.<sup>1</sup>

AT&T supports ENERGY STAR's efforts to adopt realistic and continually improving requirements for the certification of set-top boxes and service providers. AT&T was one of the first providers to receive the ENERGY STAR service provider certification, and all of its boxes met past ENERGY STAR specifications. We hope to continue as an ENERGY STAR provider, as well as having our STBs carry the ENERGY STAR seal. To that end, we have worked diligently and continuously with our hardware and middleware partners to achieve increasing energy efficiencies in our STBs and to meet the EPA ENERGY STAR requirements. Indeed, since April of this year, we have collaborated with our suppliers to achieve what we anticipate will be a 15% reduction in the power consumption of our STBs by upgrading to more efficient power regulators.

AT&T is concerned, however, that it has reached the limit of the consumption reductions that it can realistically achieve in the near term without adversely affecting the consumer's experience with AT&T products. EPA has previously recognized the need for ENERGY STAR qualified STBs to "deliver a robust, high-quality experience when in use" and to "wake quickly

<sup>1</sup> Discussion Guide available at [http://www.energystar.gov/ia/partners/prod\\_development/revisions/downloads/settop\\_boxes/Conference\\_Call70710.pdf](http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/settop_boxes/Conference_Call70710.pdf) (visited July 28, 2010).

and seamlessly when engaged by users.’<sup>2</sup> AT&T shares these goals and seeks to achieve energy efficiency while preserving customer satisfaction with its increasingly popular U-Verse product. Consequently, AT&T proposes two minor changes to the STB specifications, either of which would help to drive EPA’s goal of increased energy efficiency in the marketplace, while allowing AT&T to continue participation in the program.

Adopt Whole-Home Deployment Targets. As EPA is aware, today’s home environment is moving increasingly to a networked model, in which connected devices operate in a complementary manner. Home entertainment in particular is moving away from reliance on independent devices and toward a model in which a central STB serves multiple remote boxes, both with streaming and recorded content. The proposed STB specifications acknowledge this shift by creating an adder for whole-home boxes. However, in their current form, the proposed specifications impose static consumption requirements for each server and remote box.

AT&T believes the ENERGY STAR program would better reflect the direction of the STB market – and likely achieve the goal of a higher participation rate -- if service providers could achieve compliance by meeting a consumption goal for a whole-home deployment, without regard to the performance of individual boxes. Accordingly, we suggest that providers be allowed greater flexibility to allocate the already aggressive energy consumption goals for server and remote boxes among the various devices in a whole-home deployment. Such a rule would likely increase the number of qualifying deployments, while effectively driving down energy consumption across this market segment.

As things presently stand, AT&T’s IPTV boxes equipped with a DVR meet the announced specifications, but the non-DVR boxes fall short by a small margin. The whole-home adder gives the DVR box significant headroom but offers no help to the non-DVR box. This creates the counterproductive incentive for AT&T to deploy numerous ENERGY STAR compliant DVR boxes in a single home, although that would substantially increase the home’s energy consumption. By contrast, permitting the whole-home aggregation of the allowances for server boxes and remote boxes would allow AT&T to continue as an ENERGY STAR Service Provider. Modifying the service provider rules to consider whole home energy consumption targets in this way would allow a substantial majority of AT&T’s possible deployment configurations to meet ENERGY STAR specifications and thus qualify the company as an ENERGY STAR service provider.

Reporting and compliance for such a whole-home compliance model should not be overly complex. Providers would simply calculate the allowable consumption for a given configuration (e.g., one server box and three remote boxes) and then compare it to the

---

<sup>2</sup> See ENERGY STAR Program Requirements for Set-top Boxes, Draft 1 Version 3.0 at 10 (March 24, 2010).

deployment's actual consumption derived from equipment testing figures. A service provider could then determine its ENERGY STAR compliance with reference to the program's fleet/purchase requirements. We note that the most recent draft of STB specifications already contemplates that a particular box may be ENERGY STAR compliant in some deployments and not in others.<sup>3</sup>

Rebalance Target Numbers. Alternatively, EPA could rebalance the allowances for server and remote boxes. As noted above, AT&T's non-DVR boxes miss the current Version 3.0 targets by a slight amount, while the DVR boxes, pass with significant headroom when deployed in a whole-home configuration. If EPA was to shift a slight amount of power from the DVR and/or multi-room adders to the base allowance, that would allow both of AT&T's boxes to qualify. Indeed, a modest rebalancing along these lines might even yield a slight net reduction in the allowable average household energy consumption. This rebalancing approach would avoid the need to change qualification rules for service providers, as might be required under the whole-home strategy discussed above. AT&T would be happy to discuss this alternative in greater detail with EPA staff at your convenience.

Level of Proposed Specifications. AT&T remains concerned that the trajectory of energy efficiency goals that the proposed specifications chart is not realistically achievable in the time available. Above, AT&T has set out two modest changes to Version 3.0 that would allow the company to continue participating in the ENERGY STAR program. However, it is highly unlikely that either AT&T's server or remote IPTV boxes would qualify under Version 4.0. These increasingly demanding specifications come at a time that consumers are demanding, and the market is working diligently to deliver, boxes with ever greater functionality.

---

<sup>3</sup> See ENERGY STAR Program Requirements for Set-top Boxes, Draft 1 Version 3.0 at 13, section 3.4.6 ("If the STB meets ENERGY STAR qualification criteria in the dual-output configuration, it must be qualified for ENERGY STAR only as a Multi-room STB. The manufacturer must clearly indicate in product literature that the product qualifies for ENERGY STAR only when providing content to more than one TV."). AT&T also notes that adopting a whole-home method of calculating allowances would require a change to the Discussion Guide's rule requiring all boxes to qualify on a stand-alone basis before being considered as part of a multi-box deployment. (See Discussion Guide at 2, section 2 in the Reporting discussion.)

AT&T respectfully submits that it runs contrary to the energy efficiency goals of EPA and the ENERGY STAR program to put this type of pressure on the specifications for IPTV boxes. As ENERGY STAR's proposed allowances recognize, IPTV boxes (with a Version 3.0 base allowance of 35 kWh/year) are already substantially more efficient than those of cable providers (with base allowances of 50 kWh/year). Indeed, depending on the number of boxes deployed in a single home, Version 3.0 specifications would allow cable boxes to consume up to 37% more energy than similar IPTV deployments.<sup>4</sup>

ENERGY STAR targets should reflect what can practically be achieved, given current technology and time frames, without compromising the customer experience. If AT&T faces ENERGY STAR targets that it cannot meet without an unacceptable impact on product performance and customer satisfaction, the company would likely be compelled to relinquish its ENERGY STAR certification in this area. This would unquestionably be a bad outcome from AT&T's perspective. However, it would likely also work against EPA's broader energy efficiency goals by pushing energy conscious consumers to purchase ENERGY STAR qualified products from cable providers, even though they were substantially less efficient than AT&T's IPTV product.

---

<sup>4</sup> The following table compares the allowable consumption allowances of deployments ranging from one to eight devices in a single home across IPTV and cable technologies:

Version 3.0 Whole-home Consumption (Kwh/yr) at Target					
Device count	IPTV	Cable		Cable vs IPTV	
1	176	193		110%	
2	267	325		122%	
3	358	457		128%	
4	449	589		131%	
5	540	721		134%	
6	631	853		135%	
7	722	985		136%	
8	813	1117		137%	

