

October 21, 2010

Ms. Katharine Kaplan
U.S. Environmental Protection Agency
ENERGY STAR for Set-top Boxes
Washington, DC 20460

Re: ENERGY STAR® Program Requirements for Set-top Boxes

Dear Ms. Kaplan:

On behalf of the National Cable & Telecommunications Association (“NCTA”),¹ I am responding to the request by the Environmental Protection Agency (“EPA”) for comments from industry stakeholders on the ENERGY STAR® Program Requirements for Set-top Boxes. NCTA and its members have supported and continue to support the voluntary ENERGY STAR federal program designed to promote the manufacture and use of more energy-efficient set-top boxes.

We welcome this opportunity to submit comments and recommendations on the EPA’s ENERGY STAR® Program Requirements for Cable, Satellite, and Telecom Service Providers, Eligibility Criteria, Draft 2 Version 3.0 (“Draft 2 Version 3.0”), distributed to industry stakeholders on September 21, 2010.

Definitions

Home Network Interface

Section 1 of the Draft 2 Version 3.0 specification defines *Home Network Interface* as follows:²

The capability to interface with external devices over a network via IEEE 802.11 (WiFi), MoCA, or HPNA.

¹ NCTA is the principal trade association for the U.S. cable television industry, representing cable operators serving more than 90 percent of the nation's cable television households, more than 200 cable program networks, and suppliers of equipment (including set-top boxes) and services to the cable industry.

² See ENERGY STAR® Program Requirements for Cable, Satellite, and Telecom Service Providers, Eligibility Criteria, Draft 2 Version 3.0 (“Draft 2 Version 3.0”) at line 49.

As written, this definition appears to exclude the use of other network technologies that are not explicitly listed. We suggest the following modification to clarify that other network technologies would not be prohibited on qualifying products.

The capability to interface with external devices over a network (e.g. HPNA, IEEE 802.11 (WiFi), or MoCA).

Multi-room

Section 1 of the Draft 2 Version 3.0 specification defines *Multi-room* as follows:³

The capability to provide independent audio/video content to multiple devices within a single family dwelling. This definition does not include the capability to manage gateway services for multi-subscriber scenarios.

Based on discussions during the ENERGY STAR[®] conference call on October 4, 2010, we understand that it is not the EPA's intent to limit the distribution of content, or to limit delivery of such content only to thin-client/remote set-tops.⁴ Accordingly, we suggest that the *Multi-room* definition be modified as follows:

The capability to provide independent live or recorded audio/video content to multiple devices of any product type (base type) within a single family dwelling. This definition does not include the capability to manage gateway services for multi-subscriber scenarios.

Deep Sleep State

The EPA has proposed that manufacturers who include "Deep Sleep" functionality that is enabled by default be rewarded with a modified Total Energy Consumption ("TEC") equation for meeting product qualification criteria.⁵ We support this approach and commend the EPA for creating an incentive for manufacturers to implement this capability, rather than adopting aggressive deep sleep energy limits which would result in significant design constraints that would stifle innovation and limit the cable industry's ability to include market driven features in future set-top boxes.

We are concerned, however, that the definition of *Deep Sleep State* as currently written may be interpreted to mean that, in order for a set-top box featuring the Deep Sleep State to be qualified,

³ *Id.* at line 55.

⁴ See ENERGY STAR Set-top Box Stakeholder Webinar - October 4, 2010: http://www.energystar.gov/index.cfm?c=revisions.settop_box_spec

⁵ See Draft 2 Version 3.0 at line 101.

it must be disconnected from the service providers network. We believe that manufacturers should be given the freedom to explore and devise methods for achieving Deep Sleep State independent of network connectivity. As the EPA has heard many times before from stakeholders involved in the creation of these specifications, it is essential that the set-top box remain connected to the network in order to receive important software updates, navigation information, Emergency Alert System messages, and other data from the service provider. Moreover, disconnecting from the network does not imply that other, more energy-consuming components would also be powered off. Consequently, simply disconnecting the set-top box from the service provider's network would likely not result in significant power savings. Accordingly, we suggest the following modification to the Deep Sleep State definition, which we believe will continue to meet the goal of encouraging the use of deep sleep modes but will avoid making the use of such features contingent upon network connectivity:

A power state characterized by power consumption that is lower than Sleep Mode and increased time required to return to full On Mode functionality.

Qualification Criteria

Multi-stream

Section 3.3.3 (ii)(i) of the Draft 2 Version 3.0 specification allows manufacturers to apply the Multi-stream allowance only once, regardless of the number of simultaneous streams supported by the set-top.⁶ We believe this limitation unfairly penalizes manufacturers who design set-top boxes featuring more than two tuners. A set-top box featuring multiple tuners must be designed and built with additional hardware resources, such as a larger central processor and power supply as well as additional memory, necessary to accommodate the multi-stream capability. Consequently, these devices will consume more power regardless of whether the additional tuners are in active use or not. We respectfully request that the EPA work closely with industry stakeholders prior to publication of the final Version 3.0 specification to develop criteria under which a multi-stream allowance may be applied equitably in situations where a set-top box features multiple tuners, so that manufacturers have the needed flexibility to design and build a multi-tuner set-top box capable of meeting the ENERGY STAR[®] requirements.

⁶ *Id.* at line 289.

Service Provider Requirements

The Deploying Qualified Products section of the ENERGY STAR[®] Program Requirements for Set-top Box Service Providers Partner Commitments document that accompanied the Draft 2 Version 3.0 specification contains the following requirement:

At every opportunity, install ENERGY STAR-qualified thin-client set-top boxes in Multi-room configurations, to minimize the number of DVRs deployed to subscribers.

We believe there will be situations where service providers will not be able to deploy thin-client set-top boxes, either due to their lack of availability or because they would not be technically viable for use in certain multi-room configurations. Accordingly, we suggest this requirement be modified as follows. We believe this modification retains the EPA's goal of encouraging the use of thin-client set-top boxes and Multi-room configurations while also providing additional flexibility to the service provider:

Where appropriate, install ENERGY STAR-qualified thin-client set-top boxes in Multi-room configurations, to minimize the number of DVRs deployed to subscribers.

In the ENERGY STAR[®] Program Requirements for Set-top Box Service Providers Partner Commitments document that accompanied the Draft 2 Version 3.0 specification, the EPA added several incentives to help encourage more service providers to partner with ENERGY STAR.⁷ We support these incentives and commend EPA for working with industry stakeholders to explore new methods to encourage further participation in the ENERGY STAR[®] program.

As we suggested in our comments submitted on July 30, 2010⁸, to further encourage service provider participation, we respectfully request that the EPA lower the new purchase requirement threshold of 50% of all new set-top boxes purchased in a calendar year to 25%. We believe the addition of this change would give service providers even greater incentive to participate in the ENERGY STAR[®] program.

⁷ For service providers who deploy Thin-client devices, EPA has proposed a 1.5X multiplier to count towards the annual purchase requirement for each purchased Thin-client set-top box. In addition, a pro-rated first year purchase requirement has been proposed for service providers who wish to join as new ENERGY STAR Partners.

⁸ See Letter from Andy Scott, Vice President of Engineering, NCTA, to Katharine Kaplan, U.S. Environmental Protection Agency, ENERGY STAR for Set-top Boxes (July 30, 2010).

Effective Date

In the Draft 2 Version 3.0 specification, the EPA notes that the effective dates for Version 3.0 and 4.0 are still to be determined.⁹ We would prefer at least 18 month lead time, combined with a summer implementation date, for the effective date of Version 3.0. Accordingly, we respectfully request the EPA consider an effective date of June 1, 2012 for qualification of products under Version 3.0, and June 1, 2014 for qualification of products under Version 4.0. We believe this to be a more realistic schedule given the time needed to manufacture and test set-top hardware and associated software meeting the new ENERGY STAR[®] requirements. This assumes that final specifications and partner requirements are available by December 2010.

* * * * *

NCTA looks forward to working with the EPA and other stakeholders in developing the ENERGY STAR[®] Program Requirements for Set-top Boxes. We believe the comments and suggestions we have offered will help balance the goals and objectives of the program with an ever-increasing desire by cable customers for additional features and functions in set-top boxes, and will establish reasonable criteria that will allow cable service providers and manufacturers to make improvements in product energy efficiency. Should you have any questions or seek additional information, please do not hesitate to contact me.

Sincerely,

/s/ **Andy Scott**

Andy Scott
Vice President of Engineering

cc: Stephen Pantano, ICF International
Tom Bolioli, Terra Novum

⁹ See Draft 2 Version 3.0 at line 354.