

## DOCKETED

<b>Docket Number:</b>	16-AAER-02
<b>Project Title:</b>	Appliance Efficiency Rulemaking for Computers, Computer Monitors, and Signage Displays
<b>TN #:</b>	214171
<b>Document Title:</b>	LG Electronics USA, Inc. Comments: On CEC Appliance Efficiency Rulemaking for Computers
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	LG Electronics USA, Inc.
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	10/25/2016 10:28:45 AM
<b>Docketed Date:</b>	10/25/2016

*Comment Received From: LG Electronics USA, Inc.*

*Submitted On: 10/25/2016*

*Docket Number: 16-AAER-02*

## **On CEC Appliance Efficiency Rulemaking for Computers**

*Additional submitted attachment is included below.*



**LG Electronics USA, Inc.**

1000 Sylvan Avenue Englewood Cliffs, NJ 07632  
T: 201-816-2000 F: 201-871-0912 [www.LG.com](http://www.LG.com)

**LG Electronics USA, Inc. Comments on CEC Appliance Efficiency Rulemaking for Computers, Computer Monitors, and Signage Displays**

October 24, 2016

LG Electronics USA, Inc. (LG) respectfully submits the following comments to the California Energy Commission (the Commission) on the appliance efficiency rulemaking for computers, computer monitors, and signage displays.

**Sleep mode energy consumption requirements for computer monitors that are equipped with USB Type-C and its new alternate modes**

USB Type-C (USB-C) is a progressive USB standard that is highly acclaimed as “the cable of the future” due to its convenient and innovative features<sup>1</sup>. Along with its slimmer design and reversible plug orientation USB-C also allows users to charge devices and transfer data even when the host device is in sleep mode. Consumers are expected to significantly benefit from these convenient and innovative features, and the electronics industry has responded accordingly with the introduction of USB-C computers and computer monitors to the US market.

On September 9, 2016, the Commission published its current proposal on sleep mode energy consumption requirements for computer monitors that are manufactured on or after July 1, 2019 in Proposed Regulatory Language<sup>2</sup>:

(B) Comply with at least one of the following requirements:

1. Consume less than or equal to 0.7 watt in sleep mode and less than or equal to 0.5 watt in off mode:
- or
2. Consume less than or equal to 1.2 watts in sleep mode and off mode power combined.

However, it is understood, with careful examination, that devices with USB-C were not considered when the Commission determined these proposed sleep mode regulations for computer monitors: in its Final Analysis the Commission noted that the proposed wattage limits were chosen based on the

---

<sup>1</sup> *Introducing Three New USB Technologies*, available at [http://www.usb.org/channel/USB-IF\\_Training\\_Module\\_5-25-16.pdf](http://www.usb.org/channel/USB-IF_Training_Module_5-25-16.pdf)

<sup>2</sup> *Proposed Regulatory Language*, available at [http://doCKETpublic.energy.ca.gov/PublicDocuments/16-AAER-02/TN213550\\_20160909T092316\\_2016\\_Appliance\\_Efficiency\\_Rulemaking\\_Docket\\_No\\_16AAER02\\_Express.pdf](http://doCKETpublic.energy.ca.gov/PublicDocuments/16-AAER-02/TN213550_20160909T092316_2016_Appliance_Efficiency_Rulemaking_Docket_No_16AAER02_Express.pdf)

Commission’s analysis (refer to below Table 18) on an ENERGY STAR Display Version 6.0 qualified product list<sup>3</sup> (specification finalized on September 4, 2012), an obsolete data which dates prior to the release of USB-C’s first specification (published on August 11, 2014). Likely, USB-C’s new Alternate Modes that were released after the finalization of ENERGY STAR Version 6.0, such Thunderbolt 3 (unveiled on June 2, 2015), were altogether excluded from the aforementioned ENERGY STAR data.

**Table 18: Average Sleep- and Off-Mode Power for the ENERGY STAR QPL**

Mode		All QPL Models	Models With No Network or Data Connection	Models with Network or Data Ports					
				All With Network or Data	Fast Ethernet	Gigabit Ethernet	USB 2.x	USB 3.x	Wi-Fi
	Total # of models	1380	1064	316	7	2	165	137	2
Sleep	Average $S_{sleep}$	0.31	0.27	0.43	0.30	1.37	0.35	0.52	0.41
	% models $S_{sleep} \leq 0.7W$	92%	99%	71%	100%	0%	85%	53%	50%
Off	Average $O_{off}$	0.20	0.19	0.24	0.22	0.39	0.22	0.25	0.25
	% models $O_{off} \leq 0.5W$	85%	89%	74%	71%	0%	78%	71%	50%

Source: Energy Commission staff

Devices with USB-C is expected to draw more energy usage than other USB types in exchange for their innovative ability to transfer data in sleep mode, an unconventional feature that should differentiate USB-C devices from others. Yet, without the proper representation of USB-C devices the current sleep mode proposal stands stringent, harmful, and prejudicial to the USB-C computer monitors, and thus diverts from its original intention to regulate computer monitors of imminent future. We are concerned that this misrepresentation could potentially be detrimental to the industry and its statewide ushering of additional USB-C computer monitors, and consequently impede the betterment of computing device users’ convenience and lifestyle.

We at LG therefore would like to request the following for computer monitors with USB-C and/or USB-C with new Alternate Modes:

- 1) Exemption from sleep mode energy consumption requirements, or
- 2) New sleep mode consumption requirements/limits distinct and separate from the current proposal

We appreciate the Commission’s consideration on our comments, and look forward to continuing to work with the Commission in its future regulatory endeavors.

Sincerely,



Samuel Oh  
 North American Environmental and Regulatory Affairs  
 LG Electronics USA, Inc.

<sup>3</sup> Final Analysis of Computers, Computer Monitors, and Signage Displays, available at [http://docketpublic.energy.ca.gov/PublicDocuments/16-AAER-02/TN213548\\_20160909T092318\\_2016\\_Appliance\\_Efficiency\\_Rulemaking\\_Docket\\_Number\\_16AAER02Sta.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/16-AAER-02/TN213548_20160909T092318_2016_Appliance_Efficiency_Rulemaking_Docket_Number_16AAER02Sta.pdf)