



January 8, 2016

TO: Members, Subcommittee on Energy and Power

FROM: Committee Majority Staff

RE: Hearing entitled “H.R. \_\_\_\_, the EPS Improvement Act of 2016”

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## I. INTRODUCTION

On Tuesday, January 12, 2016, at 10:00 a.m. in 2322 Rayburn House Office Building, the Subcommittee on Energy and Power will hold a hearing entitled “H.R. \_\_\_\_, the EPS Improvement Act of 2016.”

## II. WITNESSES

- **Dr. Pekka Hakkarainen**, Vice President, Lutron Electronics, *on behalf of the National Electrical Manufacturers Association*; and,
- **Jennifer Amann**, Buildings Program Director, American Council for an Energy-Efficient Economy.

## III. BACKGROUND

The Energy Policy Act of 2005 amended the Energy Policy and Conservation Act<sup>1</sup> to, among other things, direct the Department of Energy (DOE) to establish energy conservation standards for external power supplies (EPS).<sup>2</sup> By statute, EPS is defined generally as “an external power supply circuit that is used to convert household electric current into DC current or lower-voltage AC current to operate a consumer product.”<sup>3</sup> As stated by DOE, the term is intended to cover those products that “convert household electric current into direct current or lower-voltage alternating current to operate a consumer product such as a laptop computer or smartphone.”<sup>4</sup> In simpler terms, EPS are generally understood to be devices that connect electronics to plug-loads, such as the detachable cords that provide power to laptops and mobile devices.

Given the broad and circular statutory definition of EPS, DOE has determined that additional products should be covered by the EPS definition for purposes of regulation. For instance, in a 2014 final rule establishing efficiency standards for EPS products, DOE included as a regulated EPS product certain drivers and devices that power solid state lighting products

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<sup>1</sup> Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163 (Dec. 22, 1975) (42 U.S.C. § 6291, *et seq.*).

<sup>2</sup> Energy Policy Act of 2005, Pub. L. No. 109-58, § 135 (Aug. 8, 2005).

<sup>3</sup> 42 U.S.C. § 6291.

<sup>4</sup> *DOE Appliance and Equipment Standards Rulemakings and Notices, External Power Supplies*, available at [https://www1.eere.energy.gov/buildings/appliance\\_standards/product.aspx/productid/23](https://www1.eere.energy.gov/buildings/appliance_standards/product.aspx/productid/23).

(e.g., light-emitting diodes (LEDs) and organic light-emitting diodes (OLEDs)).<sup>5</sup> DOE made this determination despite the fact that the design and use of LED drivers is distinct from the design and use of EPS. While EPS's use a single stage power conversion, LED drivers utilize a two stage power conversion design.<sup>6</sup> DOE's EPS efficiency standards are based on a single stage design. A standard based on a single stage design is not appropriate for LED drivers. Moreover, the market for LED technologies and related-drivers and devices was not yet established when Congress defined EPS in 2005. The requirements of the DOE final EPS rule go into effect in February 2016.

#### **IV. LEGISLATION**

On January 5, 2016, Rep. Ellmers (R-NC) and Rep. DeGette (D-CO) released a draft of H.R. \_\_\_\_, the "EPS Improvement Act of 2016." The legislation would exclude certain lighting technologies from the definition of EPS included in the EPS efficiency standard finalized in 2014 by DOE. It also establishes the circumstances by which DOE may prescribe standards in the future for certain solid state lighting drivers.

The legislation includes the following provisions:

##### Section 1:

This section provides the short title of "EPS Improvement Act of 2016."

##### Section 2:

This section amends and clarifies the statutory definition of "EPS" to exempt solid state lighting drivers that are designed to be connected to and power LEDs or OLEDs providing illumination.

##### Section 3:

This section establishes the conditions by which DOE may undertake a rulemaking in the future, subject to current statutory regulatory requirements, to establish standards for certain consumer and industrial solid state lighting drivers and devices. This section also requires that DOE make public the testing procedure requirements for at least a year before any Department energy conservation standard for these technologies is prescribed.

#### **V. ISSUES**

The following issues may be examined at the hearing:

- The original intent of Congress in providing DOE authority to set efficiency standards for EPS technologies;

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<sup>5</sup> *Energy Conservation Standards for External Power Supplies*, 79 Fed. Reg. 7846 (Feb. 10, 2014).

<sup>6</sup> For more on the distinction between EPS and LED drivers see Attachment 1.

- The potential impact of the final EPS efficiency standard on certain LED and OLED technologies, manufacturers, and consumers;
- The distinction between EPS and LED and OLED drivers and devices; and,
- The remedy provided by the EPS Improvement Act of 2016.

**VI. STAFF CONTACTS**

If you have any questions regarding this hearing, please contact Patrick Carrier of the Committee staff at (202) 225-2927.

### Attachment 1

## External Power Supplies vs. SSL Drivers

### External Power Supply

- ❑ Is **Separate** to the system.
- ❑ Provides **Only** power.
- ❑ The user has the **Option** to unload the power supply.
- ❑ Commercial and residential EPSs are typically a **Plug Load**



### SSL Driver

- ❑ Is **PART** of the system.
- ❑ Provides **Multiple Functions**.
- ❑ **No Option** for the user to "Unload" from the LED Modules.
- ❑ SSL Drivers are **Hard Wired** to the electrical Distribution System by an electrician.

