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STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of:	Docket Number: 08-AAER-1B
2008 RULEMAKING ON APPLIANCE EFFICIENCY REGULATIONS IMPLEMENTATION OF CALIFORNIA CODE OF REGULATIONS, TITLE 20, SECTIONS 1601 THROUGH 1608	COMMENTS OF THE SECURITY INDUSTRY ASSOCIATION.

I. INTRODUCTION

The Security Industry Association (SIA) appreciates the opportunity to submit comments. SIA represents approximately 400 manufacturers, integrators, dealers, and specifiers of electronic security and life safety solutions. SIA members manufacture, install, provide and monitor access control systems, closed-circuit television ("CCTV") and digital video systems, emergency alert systems and products, intrusion detection and fire alarm systems. These systems use both external power supplies and battery chargers with both single and multiple voltages, and with multiple tap outputs. Accordingly, the security and life safety industries have a direct interest in this rulemaking.

The Security Industry Association is concerned by the Commission's proposals to establish separate regulatory regimes for external power supplies in contrast to an industry stakeholder recommendation that the Commission conform its definition of external power

supplies to those contained in the Energy Independence and Security Act of 2007 ("EISA"), and in the Energy Policy Act of 2005. [1] The Commission's adoption of a federally regulated regime for consumer products (which is consistent with the federal definition) and a state-regulated regime for all other products (i.e., primarily products which consumers do not buy) would not achieve energy efficiency goals. Instead, SIA urges the Commission to address the efficiency standards for state regulated external power supplies in no-load mode when applied to products which are never used in no-load mode.[2]

SIA and its member companies believe the electronic security, surveillance and life safety industries and their customers will be adversely affected if the Appliance Efficiency Regulations for state-regulated external power supplies are amended as proposed by the Commission. The proposed amendments would not serve the public interest, are not beneficial and will not accomplish the goals set forth in Public Resources Code Section 25402(c). The proposed efficiency standards for no-load mode for electronic security, surveillance and life safety equipment – which are never intended to operate in no-load mode – will be very costly for the industry and undoubtedly will increase costs to California residents. In addition, as explained below, since these products do not operate in no-load mode, the standard will neither improve energy efficiency nor decrease load.

SIA and its member companies support California's initiatives to reduce load and improve energy efficiency and SIA actively participated in the U.S. Department of Energy ("DOE") Rulemaking on Test Procedures for Battery Chargers and External Power Supplies. SIA urges the Commission to recognize that it is not in the public interest to set an efficiency standard for no-load mode for state regulated external power supplies for electronic security and surveillance equipment. The Commission's adoption of this recommendation would serve the

[1] October 16, 2008 letter submitted to members of the California Energy Commission by ADT Security Services, Inc., Sensormatic Electronics Corporation, and Tyco Safety Products Canada, Ltd.

[2] The dangers of dual regulation are evident even in the proposed definition of "no-load mode," which applies only to federally regulated external power supplies. There is not a definition of no-load mode for state regulated external power supplies which are nevertheless required to meet an efficiency standard in no-load mode.

public interest by encouraging harmonious regulation between the State of California and the federal government.

II. THE PROPOSED AMENDMENTS ARE INAPPROPRIATE FOR FOR ELECTRONIC SECURITY, SURVEILLANCE, FIRE AND LIFE SAFETY SYSTEMS AND MANDATING SUCH STANDARDS WILL NOT ACCOMPLISH THE GOALS OF SECTION 25402 OF THE PUBLIC RESOURCES CODE

SIA and its member companies are concerned with two proposed amendments to the Appliance Efficiency Regulation, California Code of Regulations, Title 20, Sections 1601-1608, which pertain to external power supplies:

- Definition of "No-load mode"[3]
- The efficiency standard for state-regulated external power supplies for no-load mode

A. Minimum Efficiency Standards Are Only Appropriate Where Reduction In Energy Consumption Will Be Achieved

Section 25402(c)(1) of the Public Resources Code requires the Commission to prescribe minimum efficiency standards "in order to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy . . .."[4] Establishing no-load mode minimum efficiency standards for electronic security and surveillance external power supplies will not reduce energy consumption as those items are never operated in no-load modes.

Additionally, Section 24502(c) requires that "the minimum levels be based on feasible and attainable efficiency or feasible improved efficiencies that will reduce the energy . . . rates."[5] SIA believes establishing minimum no-load efficiency standards for electronic security, surveillance, fire and life safety equipment will not reduce energy consumption. Therefore, there

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[3] Proposed Cal. Energy Comm'n Tit. 20 § 1602(u) (As proposed: "'[n]o-load mode' means the mode of operation when a Class A external power supply is connected to the main electricity supply and the output is not connected to a load."). However, by limiting this definition to Class A external power supplies, which is a federal definition, there is no definition of no-load mode for state regulated power supplies, and as a result, the efficiency standard does not make sense.

[4] Cal. Pub. Res. Code §§ 25402(a), (c)(1).

[5] *Id.* at (c)(1).

will not be a reduction in energy rates for California residents. Furthermore, the Code specifically instructs that the "standards adopted or revised pursuant to this subdivision shall not result in any added total costs for consumers over the designed life of the appliances concerned."[6] Similarly, the Commission is also required to consider the "benefits of the standard . . . economic impact on California businesses, and alternative approaches and their associated costs."[7] Requiring that electronic security and surveillance power supplies meet minimum no-load minimum efficiency standards will impose additional costs for the security industry and California residents.

Security, surveillance, fire and life safety equipment is typically powered by AC/AC external power supplies, which use a transformer to convert voltage from household line voltage to low voltage. The higher the output rating of that equipment, the more severe the impact of the proposed no-load mode standard of .5 watts would be in terms of the compliance costs and performance quality.[8] The proposed no-load mode requirement will force the design of the transformer used in this equipment to increase in size, degrade the output regulation, and drive up costs considerably. Power supply companies have reported that at an output rating of approximately 30 W, the size of the transformer grows by double to triple the volume, and the regulation degrades from 10% to nearly 18%. Commensurate with the size increase is a cost increase for additional material. At a rating of approximately 50 W, a transformer (AC/AC) power supply requires exotic core materials, and as a result, the transformer becomes significantly more costly. For example, the proposed no-load mode standard would significantly increase costs for a video surveillance system using a 60 Hz transformer to synchronize its systems. Surveillance video systems use a 60 Hz transformer because it eliminates image degradation caused by switching video components with unsynchronized power supplies. The availability of a high quality image is important for surveillance, and the proposed no-load mode

[6] *Id.*

[7] *Id.*

[8] *See* proposed Cal. Energy Comm'n Tit. 20 § 1605.3(u), Table U-3.

standard would be very costly as 60 Hz references are not readily available in switch mode power supply outputs.

This potential costly and adverse performance impact is driven specifically by the proposed no-load mode standard. Since electronic security and life safety products are never used in no-load mode, the increased expense associated with meeting a no-load standard will not provide any energy efficiency benefit or reduction in load. Such a result is inconsistent with the intent of Section 25402(c)(1) of the Public Resources Code to "improve[ ] efficiencies that will reduce the energy . . . rates"[9] and will not achieve its stated goals "to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy . . .."[10]

B. Electronic Security, Surveillance, Fire and Life Safety Equipment Never Operates In No-Load Mode

There is one feature that is common to all security equipment: they are never intended to be operated in no-load mode. The external power supplies used in security and life safety systems can never be operated in no-load mode because disconnecting them from a load destroys the intended functionality and integrity of the system. This concept should be readily understood. A burglary or fire detection system is always "on." Such systems are always powered and monitoring something, regardless of whether they are armed or not.

Security systems do not operate in a no-load mode. Accordingly, it is not feasible to measure energy consumption of power supplies used to power security systems in no-load mode. First, in order to detect a fire or intruder on the secured property, the security systems are required to be connected to an electricity supply to be active and continuously on, monitoring various sensors. Therefore, the security systems are not capable, by definition, of "no-load mode," which requires that the product "is connected to the main electricity supply and the output is not connected to a load."[11] Second, the security systems are an *active* functioning

[9] Cal. Pub. Res. Code § 25402(c)(1).

[10] *Id.* at § 25402(a).

[11] Proposed Cal. Energy Comm'n Tit. 20 § 1602(u).

product – that function being to detect or monitor. Third, security systems typically do not have a switch that would permit them to be used in a no-load mode. The security systems, which are in continuous operation, meet the proposed definition of "active mode"[12] as they are connected to a main power source and are activated to detect and monitor.

III. PROVIDING FOR AN EXCEPTION FOR NO-LOAD POWER SUPPLIES WILL RESOLVE THESE CONCERNS

SIA believes that the simplest way to act in accordance with the charge to establish appliance efficiency standards (where appropriate) as set forth in Section 25402(c)(1) of the Public Resources Code is to add language exempting security and life safety systems from the definitions for "no-load mode."[13] SIA recommends that the Commission add the following language: "This mode does not apply to power supplies used for security, surveillance, and life safety products that are never used in no-load-mode." SIA also recommends that Table U-3 include a footnote that the no-load standard does not apply to security, surveillance, and life safety products that are never used in no-load mode.

[12] Proposed Cal. Energy Comm'n Tit. 20 § 1602(a) (As proposed, "'{Institute of Medicine 2001 #10}ctive-mode' means a condition in which an energy-using product (1) is connected to a main power source; (2) has been activated; and (3) provides one or more functions.").

[13] Proposed Cal. Energy Comm'n Tit. 20 § 1602(u).

SIA believes, that by making these suggested changes, the Commission will be acting in accordance with Section 25402(c)(1) of the Public Resources Code and will establish good and public policy by not imposing unnecessary expense and consequent performance degradation on products, the usefulness of which is defeated if used in no-load mode.

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