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STATE OF CALIFORNIA
State Energy Resources
Conservation and Development Commission

In the Matter of: 2008 RULEMAKING ON APPLIANCE EFFICIENCY REGULATIONS IMPLEMENTATION OF CALIFORNIA CODE OF REGULATIONS, TITLE 20, SECTIONS 1601 THROUGH 1608	Docket Number: 08-AAER-1B COMMENTS OF ADT SECURITY SERVICES, INC., SENSORMATIC ELECTRONICS CORPORATION, AND TYCO SAFETY PRODUCTS CANADA, LTD.

I. INTRODUCTION

ADT Security Services, Inc., Sensormatic Electronics Corporation, and Tyco Safety Products Canada Ltd. ("Safety and Security Companies") appreciate the opportunity to submit comments on the proposed amendments to the Appliance Efficiency Regulations.[1] The Safety and Security Companies are market leaders in the security, surveillance, and life safety industries. These industries manufacture, install, and as appropriate, monitor burglar alarm systems, closed-circuit television systems, electronic anti-theft systems, access

[1] The Security Industry Association is also filing comments, and the Safety and Security Companies are in general accord with those comments.

control systems, surveillance systems, emergency alert systems products, ancillary equipment such as remote enunciators used with the emergency alert systems products, and fire detection and alarm equipment. These systems use external power supplies and battery chargers with both single and multiple voltages and with single and multiple tap outputs.

The Safety and Security Companies submitted a letter to the Commission on October 16, 2008, suggesting that, in light of the Energy Independence and Security Act of 2007 ("EISA"), the Commission conform its definition of external power supplies to those contained in EISA and in the Energy Policy Act of 2005. Surprisingly, the Commission now effectively proposes two regulatory regimes for external power supplies – a federally-regulated one for consumer products (which is consistent with the federal definition) and a state-regulated one for all other products (i.e., primarily products which consumers do not buy). Such flawed and incongruous regulatory policy will increase costs and ironically *not achieve the energy efficiency goals.* The Safety and Security Companies urge the Commission to reconsider its proposed dual regulatory scheme. In these comments, the Safety and Security Companies address one issue – the proposed efficiency standard for state regulated external power supplies in no-load mode when applied to products which are never used in no-load mode.

The 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.[2] The proposed amendments are not beneficial and will not accomplish the goals set forth in Public Resources Code Section 25402(c). The proposed efficiency standard for no-load mode for security and surveillance equipment – which are not intended to operate in no-load mode – will be very costly for the industry and will increase costs to California residents. In addition, as explained below, since these

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[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.

products do not operate in no-load mode, the standard will neither improve energy efficiency nor decrease load.

The Safety and Security Companies support California's initiatives to reduce load and improve energy efficiency and are actively involved in the U.S. Department of Energy ("DOE") Rulemaking on Test Procedures for Battery Chargers and External Power Supplies.[3] To encourage harmonious regulation in the State of California and at the federal level, the Safety and Security Companies urge 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 surveillance and security equipment.

II. THE PROPOSED AMENDMENTS ARE NOT APPROPRIATE FOR SECURITY SYSTEMS AND REQUIRING SUCH A STANDARD WILL NOT ACCOMPLISH THE GOALS OF SECTION 25402 OF THE PUBLIC RESOURCES CODE

The Safety and Security 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"[4]
- The efficiency standard for state-regulated external power supplies for no-load mode[5]

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[3] *See Energy Conservation Program: Test Procedures for Battery Chargers and External Power Supplies (Standby Mode and Off Mode) and for Multiple-Voltage External Power Supplies, Proposed Rule,* 13 Fed. Reg. 48,054 (Aug. 15, 2008).

[4] 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.

[5] Proposed Cal. Energy Comm'n Tit. 20 § 1605.3(u).

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

Section 25402 of the Public Resources Code directs the Commission to prescribe minimum efficiency standards "in order to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy . . .."[6] Establishing a no-load mode minimum efficiency standard for surveillance and security external power supplies will not reduce energy consumption as those items are not intended to be (and therefore are not) operated in no-load mode.

Section 25402(c) requires that the "minimum levels or operating efficiency shall be based on feasible and attainable efficiencies or feasible improved efficiencies that will reduce the energy . . . rates."[7] Establishing a minimum no-load efficiency standard for surveillance and security equipment will not reduce energy consumption. Consequently, there will not be a reduction in energy rates. Furthermore, the Public Resources 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."[8] 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."[9] Requiring that surveillance and security power supplies meet a minimum no-load minimum efficiency standard will not provide a benefit, but rather will result in additional costs for the security industry and California residents.

Security and surveillance equipment are 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

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[6] Cal. Pub. Res. Code § 25402.

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

[8] *Id.*

[9] *Id.*

and performance quality.[10] 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 near 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 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 security or 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"[11] and will not achieve its stated goals "to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy . . . ."[12]

B. Surveillance And Security Equipment Do Not Operate 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

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

11 Cal. Pub. Res. Code § 25402(c)(1).

12 *Id.* at § 25402.

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 enabled.

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."[13] Second, the security systems are an *active* functioning 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"[14] 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

The Safety and Security Companies believe 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 of "no-load mode."[15] The

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

[14] *Id.* (As proposed, "'[a]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.").

[15] *Id.*

Safety and Security Companies suggest adding 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." In addition, the Safety and Security Companies suggest 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.[16]

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

The Safety and Security Companies believe 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 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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