DOCKETED	
Docket Number:	20-FDAS-01
Project Title:	Flexible Demand Appliance Standards
TN #:	236600
Document Title:	AHAM's comments re SB 49 FDAS Workshop
Description:	N/A
Filer:	System
Organization:	Association of Home Appliance Manufacturers (AHAM)
Submitter Role:	Public
Submission Date:	2/3/2021 1:27:23 PM
Docketed Date:	2/3/2021

Comment Received From: Association of Home Appliance Manufacturers (AHAM)
Submitted On: 2/3/2021
Docket Number: 20-FDAS-01

AHAMâ€™s comments re SB 49 FDAS Workshop

Additional submitted attachment is included below.

ASSOCIATION OF HOME APPLIANCE MANUFACTURERS

1111 19th Street NW ➢ Suite 402 ➢ Washington, DC 20036
t 202.872.5955 f 202.872.9354 www.aham.org

Submitted via: Docket Log 20-FDAS-01

February 3, 2021

J. Andrew McAllister, Ph.D.
Commissioner
California Energy Commission
Docket Unit, MS-4
Docket No. 20-FDAS-01
1516 Ninth Street
Sacramento, California 95814-5512

Dear Commissioner McAllister:

The Association of Home Appliance Manufacturers (AHAM) writes to comment on the Lead Commissioner Workshop on Senate Bill 49 Flexible Demand Appliance Standards. AHAM represents manufacturers of major, portable, and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members support more than one million jobs, have a $198 billion economic impact, and produce more than 95% of the household appliances shipped for sale. In California, the home appliance industry is a significant and critical segment of the economy. The total economic impact of the home appliance industry to California is $15.9 billion, more than 30,000 direct jobs and an additional 53,000 indirect jobs, $2.4 billion in state tax revenue and more than $5 billion in wages. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

Thank you for inviting AHAM to participate in the pre-rulemaking workshop on December 14, 2020. Workshop participants and attendees discussed, among other items, that minimum cybersecurity standards are essential to the successful deployment of connected appliance technologies. AHAM is committed to working with the California Energy Commission (CEC) and others to achieve greater deployment of demand response-capable appliances.

Robust, Flexible Cybersecurity Requirements Are Essential

As AHAM commented at the pre-rulemaking workshop, the consumer experience is a key driver to the successful implementation and use of flexible demand technologies. Critical to this experience is the cybersecurity of the appliance. Cybersecurity impacts the actual functioning of

the system and is vital for consumer trust. Both are essential for the success of California's flexible demand program. Effective cybersecurity is best achieved through a security framework that is both robust and flexible, which is specified below:

(a) A manufacturer of an IoT device shall equip the product with a reasonable security feature or features, appropriate to the nature and function of the product, and the information it may collect, contain, or transmit, designed to protect the product and any information contained therein from unauthorized access, destruction, use, modification, or disclosure. Compliance with subdivisions (b) and (c) of this section fulfills the requirement of this to equip an IoT device with a reasonable security feature or features but compliance with subdivisions (b) and (c) of this section is not the sole sufficient method of equipping a product with a reasonable security feature.

(b) Equipping an IoT device with a means to protect the product consistent with one or more of the following:

(i) A consensus standard that addresses commonly known or reasonably foreseeable vulnerabilities where such consensus standard is effective on the date of manufacture of the product shall be deemed a reasonable security feature or features under subdivision (a). Examples include ANSI/UL/CSA 2900 or ANSI/CTA 2088;

(ii) A security rating from a Certifying Body (CB) with a recognized expertise in security or connected or IoT technologies. Examples include security ratings programs at UL, Intertek, CSA, or CTIA; or

(iii) Design features that are based on widely recognized guidelines such as NISTIR 8259, the CSDE C2 Consensus Guidelines, or IEST Safe By Design - UK Code of Practice for Consumer IoT Security/ETSI TS 103 645; or

(iv) Standards and guidelines promulgated by the National Institute of Standards & Technology under the Cybersecurity Improvement Act of 2020.

(c) When a consensus standard is used as the basis for determining that an IoT device has been equipped with a reasonable security feature or features under subdivision (b) of this section and that consensus standard is amended, a manufacturer whose products conform to the previous version of the consensus standard shall be deemed to have equipped its IoT device with a reasonable security feature or features under subdivision (b) of this section so long as the product is manufactured not more than one year after the effective date of the amended consensus standard.

The proposed framework above allows for CEC reliance on existing cybersecurity standards that provide robust security and are appropriate for appliances envisioned for inclusion in the flexible demand appliance standard. Ultimately, no single standard or set of requirements would be appropriate as a wide range of products and connection methods are envisions for the CEC standards. Existing, approved cybersecurity standards allow for flexibility while ensuring security.

A Flexible Connection Model, including a Cloud-Based API is Best

Flexible demand communication standards should focus on the consumer's experience using both the product and flexible demand technology. A flexible communications standard that includes an option for a cloud-based application programming interface (API) framework ensures consumers and manufacturers have options to connect demand-response systems while also remotely connecting to an appliance. A consumer's ability to remotely connect to their appliance allows for energy management capabilities that go beyond demand response and provides the potential to integrate the whole house in an energy management system. Visibility into home energy use is a proven method to help people save energy. A standard that relies on limited, proscribed design requirements would not be practical for certain appliances and ultimately constrain the deployment or use of flexible demand technologies.

In addition, a Cloud API-based standard creates an environment that promotes the evolution of flexible demand products and consumer use. A Cloud API system simplifies the user experience by allowing for over-the-air updates to products. These post-sale updates allow companies to deploy innovative solutions that improve functionality. Over-the-air updates are a fast and effective response that will enhance the appliance's performance over time, lower costs, limit the impact of deficiencies and enable the interoperability of a range of smart products for the connected home and device management systems. Furthermore, Cloud APIs ensure an appliance's functionality is not limited or degraded by flexible demand communication needs. It allows for information communicated to and from an appliance as well as the appliance's reaction to information received from a utility to change over time more easily than a limited, hardware specific technology standard that is based solely on a specific port technology.

AHAM understand that some stakeholders place a premium on uniformity in connection methods and demand response signals and response. Such uniformity, however, is ultimately detrimental to the success of California's flexible demand standards program. Appliances that rely solely on one connection standard, such as a physical port, are problematic for numerous reasons. These include potentially blocking consumer connection to their devices; adding unnecessary cost through single purpose radios, chips, and other components; increasing target density for malicious actors; and limiting the development of new features or functions that increase the energy impact and consumer satisfaction with a flexible demand program.

Market alignment on a flexible demand response solution for appliances currently exists. The Energy Efficient and Smart Appliances Agreement of 2010, which was supported by, among others, the American Council for an Energy-Efficient Economy (ACEEE), AHAM and CEC, included a petition to the United States Environmental Protection Agency and Department of Energy for a 5% ENERGY STAR credit for connected appliances. ENERGY STAR requirements, which explicitly adopt the flexible model encouraged by AHAM, are a strong model for the CEC Flexible Demand Appliance Standards as they are already incorporated at a federal level and proven effective in home appliances currently available to consumers.

Appliance Specific Standards are Required

Manufacturers offer a diverse selection of appliances to meet consumer's specific needs and individual standards are necessary for certain appliance categories. All appliances have unique abilities with different demands on the electrical grid. Refrigerators and freezers protect human health through the preservation of food. Cooking appliances impact human health by safely heating food to kill bacteria and prevent food borne illnesses. The impact and risk of utilizing flexible demand technologies is unequal across different categories of home appliances. Would the utility be liable if their demand response signal were to cause the appliance to malfunction or interrupt its function? These factors must be included in any considerations for a flexible demand program.

CEC Must Not Exceed its Legal Authority

The authorizing legislation, SB 49, for the FDAS under development, "requires the development of standards that promote flexible demand technologies centered around consumer interests and benefits, mandating opt-in for participation in any load flexibility programs while prioritizing open source standards that maintain privacy and security."[1] While this passage creates mandatory criteria for CEC's development of FDAS, it also sets good guidance for effective policy. CEC's flexible demand standards regulations will be most successful only if they use a market-based strategy to create new, effective mechanisms for consumers to shift consumption in a manner that creates real value for California residents while incentivizing manufacturers and utilities to embrace the flexible demand program.

Moreover, CEC must be certain not to exceed its statutory authority in this rulemaking. In particular, CEC should be careful to avoid setting energy efficiency standards or energy consumption limits or design requirements. Such standards and requirements are not relevant to an effective flexible demand program and risk miring the program in needless controversy, complexity, and legal risk due to federal preemption.

CEC Must Account for the Cost Impact of Flexible Demand Regulations

Successful management of cost issues are essential for the success of a flexible demand program. If the flexible demand program is to succeed, CEC must ensure that its FDAS create market driven demand for flexible demand appliances and deliver real value to California residents. In addition, CEC should consider the potential impact of FDAS on lower income consumers as well as the practical ability of consumers to recoup upfront costs through projected future savings.

One method to assist in addressing these cost issues is to limit FDAS only to appliances marketed as flexible demand or demand responsive capable. CEC should not implement a statewide requirement that all appliances sold in CA must have demand response capability. Indeed, at a time when many California utilities are not equipped to utilize demand response appliances for load shifting or equipped to provide consumers with benefits for accepting the performance limitations associated with flexible demand, there would be only cost and no benefit

[1] Steffensen, Sean. 2020. Introduction to Flexible Demand Appliance Standards. California Energy Commission. Publication Number: CEC-400-2020-013.

to many California consumers. Further, applying the FDAS only to products marketed as demand responsive allows for the market to drive the adoption of flexible demand appliances, which ensures appropriate payback periods, attention to consumer value, and appropriate utility rate structures.

In addition, cost issues are addressed by implementing the flexible, technology agnostic standards for which AHAM has advocated through these comments. Design flexibility allows manufacturers to consider functionality and cost holistically, and to make design decisions that meet CEC requirements while minimizing cost and maximizing consumer value.

AHAM appreciates the opportunity to have participated and provide comment on the pre-rulemaking workshop. We understand and appreciate CEC's stated commitment and willingness to address this matter and look forward to continuing to work with CEC.

Sincerely,

Jacob Cassady
Director, Government Relations